

19980327.qrp v01\_n042.qrs.980327

Date: Fri, 27 Mar 1998 19:03:11 EST  
From: qrp-l@Lehigh.EDU  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: QRP-L digest 1042

QRP-L Digest 1042

Topics covered in this issue include:

- 1) [6936] Re: elmer101: TR switching and low pass filter  
by "G.R. Widmayer" <grwidma@edcen.ehhs.cmich.edu>
- 2) [6937] Loop ant  
by Tellefsen Bob-CNSE97 <cns97@lmpsil02.comm.mot.com>
- 3) [6938] LOOP AnT  
by jdenison@morelr.com (JOEL DENISON)
- 4) [6939] Component bender  
by mcveyp@kingman.com
- 5) [6940] RE: QRP/WAS  
by Larry East <w1hue@amsat.org>
- 6) [6941] Elmer101: parts ID (was: TR switching and low pass filter)  
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
- 7) [6942] QRP Mobile  
by n4js@pobox.com
- 8) [6943] Happy Dance with QRP/WAS  
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
- 9) [6944] QRP Forum at Timonium Hamfest  
by Bruce Muscolino <w6toy@pop.erols.com>
- 10) [6945] Re: QRP Mobile  
by "Steve Galchutt" <n0tu@webaccess.net>
- 11) [6946] Re: Component bender  
by Phil <k6ls@prolynx.com>
- 12) [6947] Back on the air again...  
by lprzyski <lprzyski@erols.com>
- 13) [6948] Re: Component bender  
by "Bruce Barley" <lbbbarley@feist.com>
- 14) [6949] Bands must be active tonight  
by "Tim, KD5CKP" <PROG922@worldnet.att.net>
- 15) [6950] Component Lead Bender  
by SABorns <SABorns@aol.com>
- 16) [6951] FDIIM Reaches 100 mark.  
by kt3a@juno.com (Cameron C.R. Bailey)
- 17) [6952] elmer101:  
by dave\_epps@juno.com
- 18) [6953] Elmer 101: More Questions  
by astone@erols.com
- 19) [6954] Re: elmer101:

- by Chuck and Michele Snyder <csnyder@nextdim.com>
- 20) [6955] 100k pot....  
by tom whalen <whalen@swcp.com>
- 21) [6956] Re: Component bender  
by W7LS <w7ls@blarg.net>
- 22) [6957] Elmer 101 NE612's/ Sockets????  
by Scott Bauer <ke3nv@erols.com>
- 23) [6958] Re: Elmer 101 NE612's/ Sockets????  
by Paul Harden <pharden@aoc.nrao.edu>
- 24) [6959] Re: Elmer 101 NE612's/ Sockets????  
by "Alan Kaul W6RCL" <alan.kaul@worldnet.att.net>
- 25) [6960] K6LS test equipment page.  
by "Phil, K6LS" <k6ls@prolynx.com>
- 26) [6961] Bug Stories  
by Jess Gypin <jessqrp@concentric.net>
- 27) [6962] Re: Elmer 101 NE612's/ Sockets????  
by "Ray Lowe" <wd5dhk@hotmail.com>
- 28) [6963] Re: Elmer101: parts ID (was: TR switching and low pass filter)  
by "G.R. Widmayer" <grwidma@edcen.ehhs.cmich.edu>
- 29) [6964] Re: QRP/WAS  
by Zack Lau <zlau@arrl.org>
- 30) [6965] Re: Elmer 101 NE612's/ Sockets????  
by "James C. Owen, III" <owen@piper.eeel.nist.gov>
- 31) [6966] Another N/T+ fox makes Advanced  
by Michael Maiorana <mikemo@ibm.net>
- 32) [6967] Re: Elmer 101 NE612's/ Sockets????  
by Jack Parker <Pparker@greatbasin.net>
- 33) [6968] QRP+  
by "Evert R. Halbach" <cs-erh@nich-nsunet.nich.edu>
- 34) [6969] Elmer101: Printing Postscript Files  
by Ed Manuel <n5em@flash.net>
- 35) [6970] Re: Elmer 101 NE612's/ Sockets????  
by Ed Manuel <n5em@flash.net>
- 36) [6971] Re: Component bender  
by Mike - W0TMW <crucis@sky.net>
- 37) [6972] Re: elmer101:  
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 38) [6973] FS: 38S unbuilt, case  
by mwattcpa@earthlink.net (Marty Watt)
- 39) [6974] QRPP Emergency Tx & Chronograph {Watch}  
by wa5whn@juno.com
- 40) [6975] Re: elmer101: JPG vs GIF  
by Michael Neverdosky <MichaelN@cycat.com>
- 41) [6976] Battery chargers  
by Mike - W0TMW <crucis@sky.net>
- 42) [6977] Re: Elmer 101 NE612's/ Sockets????  
by gsurrency@juno.com (Gary L Surrency)
- 43) [6978] To socket or not?

- by gsurrency@juno.com (Gary L Surrency)
- 44) [6979] Re: Elmer 101: More Questions  
by Glen Leinweber <leinwebe@mcmail.cis.mcmaster.ca>
- 45) [6980] Good band conditions  
by "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
- 46) [6981] Re: Component bender  
by Ed Loranger <we6w@qsl.net>
- 47) [6982] Web Page and Mystery Paddle  
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 48) [6983] Component lead bending  
by David Maliniak <dmaliniak@penton.com>
- 49) [6984] Re: elmer101:  
by "Frank A. West" <ke6vhm@earthlink.net>
- 50) [6985] RE: Component bender  
by Kevin Muenzler--WB5RUE <wb5rue@stic.net>
- 51) [6986] Re: Component bender  
by "James R. Johns" <jrjohns@mail90.mitre.org>
- 52) [6987] Re: lead bending  
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 53) [6988] Re: Component bender  
by Ed Loranger <we6w@qsl.net>
- 54) [6989] RI, Delaware and WAS  
by "Ed Hare, W1RFI" <ehare@arrl.org>
- 55) [6990] QRPTTF Plans?  
by Joe Gervais <vole@primenet.com>
- 56) [6991] Re: lead bending  
by Chris Cartwright <ccart@dns.vidtel.com>
- 57) [6992] Re: lead bending  
by "Michael A. Gipe" <mgipe@reliablemeters.com>
- 58) [6993] Re: Elmer 101 NE612's/ Sockets????  
by "John J. McDonough" <jjmcd@mdn.net>
- 59) [6994] Re: broken coil slugs  
by SABorns <SABorns@aol.com>
- 60) [6995] Pizza tonight in Bay Area  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
- 61) [6996] Re: To socket or not?  
by "John J. McDonough" <jjmcd@mdn.net>
- 62) [6997] Lead benders and cores  
by PDouglas12 <PDouglas12@aol.com>
- 63) [6998] Re: Lead benders and cores  
by Ed Loranger <we6w@qsl.net>
- 64) [6999] V or H expanded some :-)  
by jdenison@morelr.com (JOEL DENISON)
- 65) [7000] Off Topic Question  
by "Ron Smith" <resmith@primenet.com>
- 66) [7001] SG2020  
by AndyEmert <AndyEmert@aol.com>
- 67) [7002] Re: SG2020

by "Michael A. Gipe" <mgipe@reliablemeters.com>  
68) [7003] Re: SG2020  
by "J. Skalski" <jskalski@acsu.buffalo.edu>  
69) [7006] Re: SG2020  
by "S. Lee" <slee@u.washington.edu>  
70) [7007] Re: goat clusters  
by Bill Howell <bhowell@mail.utexas.edu>  
71) [7008] Re: broken slugs  
by Monte Stark <ku7y@dri.edu>  
72) [7009] Re: To socket or not?  
by mwattcpa@earthlink.net (Marty Watt)  
73) [7010] Hey, Central CA QRP guys!  
by Vic Rosenthal <rakefet@rakefet.com>  
74) [7011] Old transistors found  
by Michael Maiorana <mikemo@ibm.net>  
75) [7012] WTB: T-T Items  
by "Wilford D. Lindsey" <70511.3041@compuserve.com>  
76) [7013] T connector  
by Brad Mugleston <bmug@gwl.com>  
77) [7014] Re: goat clusters  
by Ed Loranger <we6w@qsl.net>  
78) [7015] Why not needle nose pliers?  
by David Maliniak <dmaliniak@penton.com>  
79) [7016] Re: broken slugs  
by Ed Loranger <we6w@qsl.net>  
80) [7017] Re: T connector  
by Roger Hightower <n7kt@earthlink.net>  
81) [7018] Re: T connector  
by mwattcpa@earthlink.net (Marty Watt)  
82) [7019] Epiphyte Confusion: (Answers...please)  
by SNickrand <SNickrand@aol.com>  
83) [7020] Re: T connector  
by "Ken Hanks" <kennfd@ibm.net>  
84) [7021] Capacitor Question  
by Chris Cartwright <ccart@dns.vidtel.com>  
85) [7022] Re: broken slugs  
by Mike - W0TMW <crucis@sky.net>  
86) [7023] Re: Lead benders and cores  
by "Steve Sorrell" <ap036@detroit.freenet.org>  
87) [7024] Another SLV Coil!  
by Rick McNelly <72507.235@compuserve.com>  
88) [7025] Re: Capacitor Question  
by mjsilva@ix.netcom.com (michael silva)  
89) [7026] Norcal Paddle mod question  
by Paul Erickson <paul1@wizard.ucs.sfu.ca>  
90) [7027] Capacitor question  
by "Michael A. Gipe" <mgipe@reliablemeters.com>  
91) [7028] Re: Capacitor Question

by Kent Torell <torell@sicom.com>  
92) [7029] Re: Capacitor Question  
by Roger Hightower <n7kt@earthlink.net>  
93) [7030] Re: Capacitor Question  
by Bob Liesenfeld <wb0poq@visi.com>  
94) [7031] QRP Books- lower Price  
by "Tim Cook" <timcook@erinet.com>

-----  
Date: Thu, 26 Mar 1998 19:09:13 -0500  
From: "G.R. Widmayer" <grwidma@edcen.ehhs.cmich.edu>  
To: pharden@aoc.nrao.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6936] Re: elmer101: TR switching and low pass filter  
Message-ID: <351AEE29.734E37D3@edcen.ehhs.cmich.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

While we are talking abt the Elmer 101 and related items can you or  
someone else please ID each  
transistor in the rig, like mixer, audio amp, etc? (dumb question)

Gary/N8AYY

-----  
Date: Thu, 26 Mar 1998 18:20:46 -0600  
From: Tellefsen Bob-CNSE97 <cnse97@lmpsil02.comm.mot.com>  
To: rattray@gpfn.sk.ca  
Cc: QRP-L list <QRP-L@Lehigh.EDU>  
Subject: [6937] Loop ant  
Message-ID: <351A2DFAE256D111883A0060B06B166251DA35@s-il02-j.comm.mot.com>  
MIME-Version: 1.0  
Content-Type: text/plain

Bruce:

That's a question I have wrestled with myself, using EZNEC to model  
loops of various shapes and heights.

In an ideal environment, the square loop is better, but requires taller  
supports.

I have a situation where my supports are limited to 35 ft, so I used

that constraint in my modeling.

My best performing loop arrangement came out as a rectangle, approx 20 ft tall and 50 some ft long. I feed in the center of one side for vertical polarity. Note that this antenna is in service, and has performed well through the Fox Hunting season, but as a hunter and as a Fox.

I hve another loop, a diamond, on the garage roof that I phase with this antenna. That is the killer system here.

The key point of this rambling is that before you can say what is the best loop, you have to specify under what conditions, constraints, etc.

73, Bob N6WG and 01' Kenwood

-----  
Date: Thu, 26 Mar 1998 18:34:50 -0600 (CST)  
From: jdenison@morelr.com (JOEL DENISON)  
To: qrp-l@Lehigh.EDU  
Subject: [6938] LOOP AnT  
Message-ID: <199803270034.SAA22868@m20.morelr.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Thanks for the post Bob

    You answered my two questions without me having to ask... what a list...  
72  
god bless  
joel wa5cvm displaced cajun, in maine, in sneaux, in time for supper :-)

God Bless  
Joel

|                     |                                                 |
|---------------------|-------------------------------------------------|
| WA5CVM              | Gentlemen don't Cry, They QSY :-)               |
| Joel Denison        | Gentle Lady (RC Sail Plane)(049 engine - start) |
| PO BOX 542          | 40 mtr loop up 50ft                             |
| Strong, Maine 04983 | QRP ARCI 4066 NEW ENGLAND QRP 476 QRP-L 765     |
| jdenison@morelr.com | AK/QRP 109                                      |

-----  
Date: Thu, 26 Mar 1998 18:03:41 -0700

From: mcveyp@kingman.com  
To: qrp-1@Lehigh.EDU  
Subject: [6939] Component bender  
Message-ID: <199803270103.SAA21521@kingserv.kingman.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

... --- ... What's the tool called that bends the components so it won't fall through the circuit hole? If I knew what it was called I could search for it, buy it and make my 40m QRP transceiver. Advance thanks.

Patrick KC7AIR  
Kingman, AZ

-----  
Date: Thu, 26 Mar 1998 17:41:00 -0700  
From: Larry East <w1hue@amsat.org>  
To: qrp-1@Lehigh.EDU  
Cc: Joseph Trombino jr <joebarb@wilmington.net>  
Subject: [6940] RE: QRP/WAS  
Message-ID: <3.0.3.32.19980326174100.0090d3d0@eloi>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

> Now do I really want to try for WAC/QRP and DXCC/QRP??:)

Well, I have over 120 countries confirmed using QRP, but fewer than 30 states! Does that mean that QRP/DXCC is easier than QRP/WAS? :- ) (Nah ... it just means that I like to chase DX!)

72, Larry W1HUE/7

PS -- Glad I was able to give Joe Idaho -- anyone else need an Idaho QS0?

-----  
Date: 26 Mar 1998 19:55:58 -0500  
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>  
To: grwidma@edcen.ehhs.cmich.edu  
Cc: qrp-1;;  
Subject: [6941] Elmer101: parts ID (was: TR switching and low pass filter)  
Message-ID: <1998Mar26.195558-0500@[130.113.234.7]>

In <351AEE29.734E37D3@edcen.ehhs.cmich.edu>, G.R. Widmayer wrote:  
>While we are talking abt the Elmer 101 and related items can you or  
>someone else please ID each  
>transistor in the rig, like mixer, audio amp, etc?

Gary,

You mean, like THIS?....(I have ALL the components done like this: edited out all the R's and C's and L's and Y's). If anyone's interested, I can e-mail the whole kit-n'-kaboodle to you - its kinda long for QRP-L.

- 
- D1...MV1662 A diode whose capacitance varies with applied D.C. voltage. Used as a small variable capacitor to tune VFO frequency.
- D2...1N4148 The full 8v is too close to maximum acceptable for SE612 chip: D2 drops 8v to 7.4v. Also adds a little RF isolation for U1, U3.
- D3...1N4148 During receive, clips large +ve-going noise spikes. During transmit, limits gain of U4 by clipping.
- D4...1N4148 During receive, clips large -ve-going noise spikes. During transmit, limits gain of U4 by clipping.
- D5...1N4148 Engages mute gate very quickly, by discharging C24. When the key goes up, C24 charges slowly through R8, not D5.
- D6... Negative clamp for Q6. Keeps the R.F. drive generally positive for Q6: it stays "on" for a larger part of the cycle.
- D7...1N4148 transmit signal clamp. Keeps excessively large RF voltage out of U1 during transmit. D7 and D8 clamp +ve-going RF peaks.
- D8...1N4148 see D7 above. Two diodes are used in series to allow very large receive signals in without generating distortion.
- D9...1N4148 transmit signal clamp. See D7. This one's for -ve-going RF peaks.
- D10...1N4148 see D7, D8, D9 above...this one's for -ve-going RF peaks.
- D11... Avalanche diode sets supply voltage to 7.5 volts DC for U5.
- D12... Avalanche diode clamps excessive RF peaks that might occur with strange antenna loads, protecting Q6.
- D13...1N4001 DC supply protection diode, prevents damage should input DC supply be connected with wrong polarity.
- Q1..MPF102 Analog switch: OFF during transmit, ON during receive.
- Q2..2N4401 VFO Colpitts 3MHz. oscillator. Tunes about 40 Khz via D1.
- Q3..2N3906 PNP transistor switch: ON during transmit, OFF for receive. It pulls the transmit mixer, driver up to 12v during TX.
- Q4..2N4401 Linear buffer, loads T2,T3 filter very little, but provides low-impedance drive for Q5. Has voltage gain of 1.
- Q5..2N4401 RF amplifier. A linear amplifier to boost RF power to drive the final amplifier.
- Q6..2SC2078 Final (Class C, D?) amplifier. Boosts transmit RF power up to 1.5 W. Non-sinusoid output requires filtering to ant.



U1...SE612 A mixer/oscillator chip used here to convert 7 MHz. receiver RF down to 4 Mhz. I.F. frequency. The oscillator is unused - the local oscillator is coupled in from Q2 (VFO).

U2...78L08 Three-pin low-current voltage regulator outputs +8v DC.

U3...SE612 A mixer/oscillator chip used here to convert 4 Mhz. I.F. signals down to audio. A 4 Mhz. crystal oscillator is included.

U4...NE5532 A dual op-amp. Two low-noise amplifiers are used to amplify audio linearly and to drive headphones.

U5...SE612 A mixer/oscillator chip used here to convert 3 Mhz. VFO RF up to 7 Mhz. for the transmit amplifier. A 4 Mhz. crystal oscillator is included.

-----

Date: Thu, 26 Mar 1998 17:07:05 -0500 (EST)  
 From: n4js@pobox.com  
 To: qrp-l@Lehigh.EDU  
 Subject: [6942] QRP Mobile  
 Message-ID: <XFMail.980326170705.n4js@pobox.com>  
 Content-Type: text/plain; charset=us-ascii  
 Content-Transfer-Encoding: 8bit  
 MIME-Version: 1.0

Just got back from 2 1/2 days up in Allentown, PA. Had a nice meeting and dinner with Ron, Les and John (did I remember the names?) from the EPA QRP Club. I brought along the 38S and the NC40A. I really didn't expect to work much, after all, QRP is enough of a handicap, but with a mobile antenna? Well, I did splurge, and got a Texas Bugcatcher, Big coil, 5' mast, 16" capacity hat, and 4' Whip. Looks impressive...and surprise, it worked! With the little NC40A, I found I could work most of what I heard that was 559 or better. If they were QRP the odds were even better. Had a ball with the thing. Never did try 30M, as was busy enough on 40.

Sent at 17:07:05 on 26-Mar-98

|                               |                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------|
|                               | John L. Sielke n4js@amsat.org n4js@pobox.com                                        |
| _ \           _     / _ _     | n4js@qsl.net NJ Grid:FM29LN                                                         |
| . '     _ _         \ _ _ \   | <a href="http://www.qsl.net/n4js">http://www.qsl.net/n4js</a> NJ-QRP #57 QRP-L #884 |
| _   \         \ _ _ /   _ _ / | QRP-ARCI CQC #443 CQrp #50 AKQrp ARQrp                                              |
| NE-QRP #507 G-QRP #9544       | NorCal #1989 QCWA FISTS #2781 ARS #243                                              |

-----

Date: Thu, 26 Mar 1998 20:26:45 -0500  
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>  
To: "INTERNET:joebarb@wilmington.net" <joebarb@wilmington.net>, "Doc W.D. Lindsey/  
K0EVZ" <70511.3041@compuserve.com>,  
    QRP-L Discussion Group <QRP-L@Lehigh.EDU>  
Subject: [6943] Happy Dance with QRP/WAS  
Message-ID: <199803262028\_MC2-381B-907C@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: 7bit  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

Joe:

Hard to tell you are excited, wot! Congrats on this signal <VBG>  
achievement. Now you already \*know\* you should keep going. And also, ho  
about Five Band QRP/WAS?

Good luck es 72/73,  
--Doc Lindsey/K0EVZ           Rochester, MN--Home of the Mayo Clinic.  
MWBC  
519-16th Street SE  
Rochester, MN 55904  
507/289-5108 (eves)

-----  
Date: Thu, 26 Mar 1998 20:47:02 -0500 (EST)  
From: Bruce Muscolino <w6toy@pop.erols.com>  
To: QRP-L@Lehigh.EDU  
Subject: [6944] QRP Forum at Timonium Hamfest  
Message-ID: <2.2.16.19980326213853.18972e1a@pop.erols.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

There will be a QRP Forum at the Greater Baltimore Hamfest and Computer Show  
(www.gbhc.org) this coming Saturday morning at the Maryland State  
Fairgrounds in Timonium. Four well known QRPers will work together to  
explain and inform about QRP. Scott Rosenfeld, NF3I, will handle QRP in  
general; Craig Sterling, AA3MD, will handle QRP DXing; and Mike Czuhajewski,  
WA8MCQ, will handle QRP Rigs. I (W6TOY/3) will be the Master of Ceremonies.  
Ron Polityka, WB3AAL, will be on hand to talk s bit about the Eastern  
Pennsylvania QRP Society. You'll are invited. Stop by and say HI!

The forum starts at 0930 (gives you an hour or two to prown the swapmeet  
first) and runs for about an hour. The forums are held in a building

located next to the main hamfest building.

73 and come say hi!

-----  
Date: Thu, 26 Mar 1998 19:40:15 -0700  
From: "Steve Galchutt" <n0tu@webaccess.net>  
To: "\"Low Power Amateur Radio Discussion\">" <qrp-1@Lehigh.EDU>  
Subject: [6945] Re: QRP Mobile  
Message-ID: <003801bd592a\$509b5ea0\$50a8a3cc@SG2939M.webaccess.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

It's like the real estate salesman said "It's antenna, antenna, antenna"

=8^)

72...Steve

-----  
n0tu - solar powered QRP & wire antennas @ 7,200' ASL  
Monument, Colorado - Grid Sq DM79nb  
email: n0tu@webaccess.net  
-----Original Message-----  
From: n4js@pobox.com <n4js@pobox.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Date: Thursday, March 26, 1998 6:09 PM  
Subject: QRP Mobile

>Just got back from 2 1/2 days up in Allentown, PA. Had a nice meeting and  
>dinner with Ron, Les and John (did I remember the names?) from the EPA QRP  
>Club. I brought along the 38S and the NC40A. I really didn't expect to work  
>much, after all, QRP is enough of a handicap, but with a mobile antenna?  
Well,  
>I did splurge, and got a Texas Bugcatcher, Big coil, 5' mast, 16" capacity  
hat,  
>and 4' Whip. Looks impressive...and surprise, it worked! With the little  
NC40A,  
>I found I could work most of what I heard that was 559 or better. If they  
were  
>QRP the odds were even better. Had a ball with the thing. Never did try  
30M, as



Subject: [6947] Back on the air again...  
Message-ID: <351B1991.D67B9616@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

> Greetings low power fanatics: I've been lurkin' around here for a while getting my

> interest in ham radio up again after abt 8 years off the air (HF that is). I did  
> the unexpected and got on the air tonite with my new IC-756. So many buttons and  
> knobs to learn! Wow!

> I worked W1VXW, Bob in Mass. wid my 4 watts out to and inverted V at 50 ft. Yes, it

> was a thrill to get back on the air after such a long time, and as you all here  
> know... QRP made it even better! I'm using a lawn-tractor battery for power as my

> AC PS hasn't arrived yet. I know, I don't need no stinkin' 300 cold-crank amps, but

> they're there for lamps if I have a power outage.

73, Larry K3PEG

> I was last an ATV'er a while back too. But, now the interest is back to HF es also

> getting my Extra class upgrade from Advanced. Going to class Wednesday evenings so

> I can't check into the net with you all.

-----  
Date: Thu, 26 Mar 1998 09:32:59 -0600  
From: "Bruce Barley" <lbbbarley@feist.com>  
To: <k6ls@prolynx.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [6948] Re: Component bender  
Message-ID: <199803270332.VAA08641@wichita.fn.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

No, it is a lead crimper. On automated insertion machines using reels of taped components, as each component is snipped from the reel, its leads are crimped which puts a tiny bent arc into each lead. That keeps the body of the component up, and off of the circuit board. The arrangement is by a shoe and a tiny die. Also provides a measure of stiffness in the lead; helps to reduce vibration, also. I have not seen anything for hand use to

crimp the leads in a similar manner. However, there are many places I've not been, and many things I've not seen.

Bruce KB0PZD qrp-l # 69  
lbbarley@feist.com

-----  
> From: Phil <k6ls@prolynx.com>  
> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
> Subject: Re: Component bender  
> Date: Thursday, March 26, 1998 8:59 PM  
>  
> Ummm, Pliers ???  
>  
> --  
> 73 de Phil, K6LS  
>  
> k6ls@qsl.net <or> k6ls@amsat.org  
> <http://www.qsl.net/k6ls>  
> <http://www.prolynx.com/k6ls>  
> DM79oq, Arapahoe County, Colorado  
> ITU zone 7, CQ zone 4  
> QRP-L #612 NorCal #824  
> CQC #471 ARCI #8866  
> WSWSS #148  
>

-----  
Date: Wed, 25 Mar 1998 22:44:13 -0600  
From: "Tim, KD5CKP" <PROG922@worldnet.att.net>  
To: qrp-l@Lehigh.EDU, cw@qth.net, homebrew@qth.net  
Subject: [6949] Bands must be active tonight  
Message-ID: <3519DD1D.6869@worldnet.att.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The list are dead. So much for brain food. Hope to catch y'all on the air in the not to distant future.

73 es gudnite

Tim

--  
Tim, KD5CKP

QRP-L #1510  
<http://home.att.net/~prog922>

-----  
Date: Thu, 26 Mar 1998 22:44:28 EST  
From: SABorns <SABorns@aol.com>  
To: qrp-l@Lehigh.EDU  
Subject: [6950] Component Lead Bender  
Message-ID: <f2c3ef52.351b209e@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Gang,

I believe that you can get a percision lead bending guage from S and S Electronics.

There is a link from the NorCal page to their web site.

73, Steve K8IDN

-----  
Date: Thu, 26 Mar 1998 22:44:42 -0500  
From: kt3a@juno.com (Cameron C.R. Bailey)  
To: qrp-l@Lehigh.EDU  
Cc: w4qo@america.net, w4du@bellsouth.net  
Subject: [6951] FDIM Reaches 100 mark.  
Message-ID: <19980326.230951.3334.0.kt3a@juno.com>

Here are the latest registrations.

KT3A - Registration Dude  
Cameron C.R. Bailey  
Mount Wolf, Pennsylvania  
kt3a@juno.com

|   | Call   | First Name | Last Name |
|---|--------|------------|-----------|
| 1 | KT3A   | Cameron    | Bailey    |
| 2 | NF3I   | Scott      | Rosenfeld |
| 3 | KC5FMZ | Robert     | Sorge     |
| 4 | WA1QAA | Mike       | Carr      |
| 5 | W2MY   | Steven     | Pituch    |

|    |        |          |             |
|----|--------|----------|-------------|
| 6  | W2MBY  | John     | Pituch      |
| 7  |        | Terence  | Shilhanek   |
| 8  | KR5L   | Jerry    | Henshaw     |
| 9  | WB4TAJ | Bob      | Bruner      |
| 10 | WA9FLX | Dick     | Wohlschlag  |
| 11 | WW4WL  | Mitchell | Louis       |
| 12 | KB2WDK | Bob      | Fae         |
| 13 | KG2ED  |          |             |
| 14 | K2IPH  |          |             |
| 15 |        | Martin   | Lynch       |
| 16 | W1HUE  | Larry    | East        |
| 17 | K1CL   | Charles  | Ludinsky    |
| 18 | N8PVZ  | Bernard  | Gaffney     |
| 19 | K8IDN  | Steven   | Bornstein   |
| 20 | K8IQY  | Jim      | Kortge      |
| 21 | G4WIF  | Tony     | Fishpool    |
| 22 | G3MFJ  | Graham   | Firth       |
| 23 | K5ZTY  | Bill     | Stietenroth |
| 24 | K8AX   | David    | Brown       |
| 25 | N5SK   | Steven   | Karty       |
| 26 |        | Vincent  | Passione    |
| 27 | N9ZZ   | Robert   | Schill      |
| 28 |        | Embedded | Research    |
| 29 |        | Embedded | Research    |
| 30 | K0BC   | Gary     | Harrison    |
| 31 | KF00V  | Dan      | Copeland    |
| 32 | W0HX   | Stan     | Underhill   |
| 33 | N9QIL  | Kenneth  | Wezeman     |
| 34 | W5TWR  | Ed       | Crowell     |
| 35 | W8LPR  | Michael  | Nelson      |
| 36 | K5HGB  | Glen     | Reid        |
| 37 | N7RI   | Ralph    | Irons       |
| 38 | WA8RXI | Richard  | Arzadon     |
| 39 | K8ZN   | Doug     | LeVan       |
| 40 | AD6AY  | David    | Fifield     |
| 41 | WA8HDR | David    | Doubleday   |
| 42 | WD4ET  | Jeffrey  | Greer       |
| 43 | KF4TPR | Debbie   | Greer       |
| 44 | WD8AAU | Daniel   | Puckett     |
| 45 | AA5VS  | Robert   | Bowman      |
| 46 |        | Jim      | Wharton     |
| 47 | KA0GKC | Claton   | Cadmus      |
| 48 | N9AYI  | Randy    | Jobe        |
| 49 | N9AYI  | Randy    | Jobe        |
| 50 | W4DU   | Ken      | Evans       |
| 51 | K4PQC  | Phil     | Specht      |
| 52 | W4Q0   | Jim      | Stafford    |
| 53 | KS4RN  | Leonard  | Young       |



|     |        |         |              |
|-----|--------|---------|--------------|
| 54  | KC5TUH | Galen   | Krisov       |
| 55  | KD3FG  | Jon     | Mitchell     |
| 56  | N3XRV  | Chris   | Cartwright   |
| 57  | N3FZX  | Ken     | McCaughey    |
| 58  |        | Bob     | Hospadaruk   |
| 59  | KF6ML  | Samuel  | Imai         |
| 60  | N8ET   | Bill    | Kelsey       |
| 61  | W1REX  | Rex     | Harper       |
| 62  | W5JAY  | Jay     | Bromley      |
| 63  | AE4IC  | Bob     | Kellogg      |
| 64  | A1XYL  | Ellen   | Kellogg      |
| 65  | N5EM   | Ed      | Manuel       |
| 66  | VE3FA0 | Frank   | Roberts      |
| 67  | K2UD   | Howard  | Kraus        |
| 68  | N8VAR  | Ron     | Doyle        |
| 69  | AC5II  | Don     | Doyle        |
| 70  | WA1FXT | Robert  | Cerreto      |
| 71  | N3SLR  | Rich    | Bachmann     |
| 72  | N3BYN  | Gary    | Johney       |
| 73  | KM3V   | Chuck   | Hartley      |
| 74  | K3TKS  | Danny   | Gingell      |
| 75  | WA2YGY | Ray     | Johnston     |
| 76  | W40P   | Dale    | Parfitt      |
| 77  | W7EL   | Roy     | LeWallen     |
| 78  | K7RXV  | Roger   | Steyaert     |
| 79  | WA6OWR | Jerry   | Parker       |
| 80  | K2SH   | Brian   | Harold       |
| 81  | WB9FLW | Peter   | Eaton        |
| 82  | KF6CXC | Bob     | Cortez       |
| 83  | W3HMS  | John    | Jaminet      |
| 84  | VA3SB  | Serge   | Bertuzzo     |
| 85  |        | Fred    | Massena      |
| 86  | KE30A  | Dave    | Nygren       |
| 87  | N3RN   | Bob     | Nygren       |
| 88  | N8TUT  | Douglas | Marsh        |
| 89  | K9NE   | Wayne   | Reed         |
| 90  | K04CO  | Edward  | Simon        |
| 91  | W3QF   | John    | Muller       |
| 92  | AB5PC  | Dave    | Epps         |
| 93  | N9JXY  | Denny   | Payton       |
| 94  | #7404  | Ralph   | Butler       |
| 95  | AA10F  | Jerome  | Terres, M.D. |
| 96  | K5HQP  | Ben     | McKinney     |
| 97  | N3SAD  | Kathy   | Szakonyi     |
| 98  | KA3ZOW | Dick    | Szakonyi     |
| 99  | KG8IH  | Stephen | Trier        |
| 100 | N4TME  | Al      | Ruschel      |

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 26 Mar 1998 20:39:57 -0800  
From: dave\_epps@juno.com  
To: qrp-1@Lehigh.EDU  
Subject: [6952] elmer101:  
Message-ID: <19980326.204022.2046.0.dave\_epps@juno.com>

Unable to print the full schematic of the sw-40+.  
I run win-95 with an epson 600 ink-jet printer. I downloaded the  
postscript  
file, but apparently I need a program to print it. What do I need to do?  
dave ab5pc fresno, ca.

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 26 Mar 1998 23:59:03 -0800  
From: astone@erols.com  
To: qrp-1@Lehigh.EDU  
Subject: [6953] Elmer 101: More Questions  
Message-ID: <351B5C47.1D5D@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi -- Since the fun has begun I figure I might as well ask some things  
that have mystified me for a while too. For example, it's never been  
clear to me why .01 uf are use in some places and .1 uf in others (for  
bypassing). For example c101 and c105 both connect to pin 8 on the NE612  
(U1 and U3) but one is a .1 and the other a .01. How come? Either  
presents a very low impedance at the frequencies we're dealing with and  
also relative to the circuit impedance at the point where they are  
placed, and they cost about the same too. Does it have something to do

with their self-resonant frequency?

On the TR switch, why are two (instead of 1) 1N4148s placed in series in both legs? I think the reason has something to do with reducing intermod. on receive but I have no clue as to why that might be. Also, it would seem that the higher voltage (1.4V) would stress the NE612 input more.

Thanks for your help and much more to come I'm sure!

72,

Ron (KA3J)  
Bethesda, MD

-----  
Date: Thu, 26 Mar 1998 21:11:37 +0000  
From: Chuck and Michele Snyder <csnyder@nextdim.com>  
To: dave\_epps@juno.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6954] Re: elmer101:  
Message-ID: <351AC488.CC06387C@nextdim.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Dave,

This is how I did it: I copied the jpg graphic and placed it in photoshop or any graphic viewer. Configured my printer to temporarily print in landscape form. It printed okay, but some of the component values are hard to I.D.. I incidentally center-tiled the schematic on my 17" monitor desktop. I can see most of all the schematic on my desktop. As for a good graphic viewer, look for Photo Studio. It is very similar to Photoshop, but best of all it's...FREE! Simply do a search on Photo Studio...good luck.

A side note: It sure feels good to have my call-sign so I can do some well deserved ragchewing. Wayne, an Extra, loaned me a J-Pole for my hand-held. I need to do some research on the J-Pole Antenna. If anyone wants to enlighten me on J-Poles, please feel free :-).

--

Chuck Snyder (KD7BBF) <== BAND NEW CALL SIGN!!!  
<http://www.nextdim.com/users/csnyder/index.htm>  
QRP-L #1462  
Spokane, WA

dave\_epps@juno.com wrote:

> Unable to print the full schematic of the sw-40+.  
> I run win-95 with an epson 600 ink-jet printer. I downloaded the  
> postscript  
> file, but apparently I need a program to print it. What do I need to do?  
> dave ab5pc fresno, ca.  
>  
>  
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> Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 26 Mar 1998 23:07:30 -0700  
From: tom whalen <[whalen@swcp.com](mailto:whalen@swcp.com)>  
To: Low Power Amateur Radio Discussion <[qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)>  
Subject: [6955] 100k pot....  
Message-ID: <[351B4222.4EB9@swcp.com](mailto:351B4222.4EB9@swcp.com)>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hello Fellow QRPers!

I guess I should have mentioned the size of the 10 turn pot I bought.

I must have been brain dead when I bought this thing, or maybe I'm used to working on my DX-100!!

Anyhow it measures 1.75 x 2.15 inches. Like I said it won't fit in my enclosure. I'm going to back to the surplus store and see if he has anything smaller!!

Have had interest in this pot and counter as per previous post. Now you know the size of this thing.....still want it guys??

72, Tom WB5QYT "Have spud will travel!"

-----  
Date: Thu, 26 Mar 1998 20:44:29 -0800  
From: W7LS <w7ls@blarg.net>  
To: mcveyp@kingman.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [6956] Re: Component bender  
Message-ID: <351B2EAD.1612@blarg.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

mcveyp@kingman.com wrote:

>  
> ... --- ... What's the tool called that bends the components so it won't  
> fall through the circuit hole? If I knew what it was called I could search  
> for it, buy it and make my 40m QRP transceiver. Advance thanks.  
> Patrick KC7AIR  
> Kingman, AZ

Lead bender. Active Electronics has them. 73 de Jim, W7LS

-----  
Date: Fri, 27 Mar 1998 02:20:14 -0500 (EST)  
From: Scott Bauer <ke3nv@erols.com>  
To: qrp-1@Lehigh.EDU  
Subject: [6957] Elmer 101 NE612's/ Sockets????  
Message-ID: <199803270720.CAA03919@smtp2.erols.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

OK, Im a little confused about the NE602. I have built a whole bunch of QRP rigs and one thing really bothers me about the NE602 and weather or not to use a socket with it. I have just seen the fine pictures in Chucks page. There are sockets used with the NE602's. I have sockets installed in all four of my GM-xx with the 602's in them. I have sockets installed in other gear with 602's in them. BUT..... I also have built the Ten Tec 1340 and 1330 along with the MXM Simple XCVR. Both of the manuals for these rigs warn you not to use a socket. I dont understand... What am I missing out on here?? All of my rigs work fine with or without the socket installed. Can someone help me with this one??

72, Scott w3cv  
72&73 de Scott Bauer W3CV, Odenton, MD. grid FM19. Formerly KE3NV  
Founder and trustee of W3DV, Woodwardville ARC, "the WARC"

A local club for the QRP enthusiast

visit my web page at <http://www.erols.com/ke3nv/>

G-QRP 8773

QRP-L 728

NORCAL 1094

DL-QRP-AG \*GM\*

CQC 352

QRP ARCI-8804

scQRPion 38

AR-QRP 27

WARC QRP Club

CW OPERATORS QRP CLUB 484, FISTS, ARRL

-----  
Date: Fri, 27 Mar 1998 00:54:23 -0700 (MST)  
From: Paul Harden <pharden@aoc.nrao.edu>  
To: Scott Bauer <ke3nv@erols.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6958] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <Pine.SOL.3.91.980327003226.10699D-1000000@zia>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 27 Mar 1998, Scott Bauer wrote:

> OK, Im a little confused about the NE602. I have built a whole  
> bunch of QRP rigs and one thing really bothers me about the NE602  
> and weather or not to use a socket with it.

> 1330 along with the MXM Simple XCVR. Both of the manuals for these  
> rigs warn you not to use a socket. I dont understand... What am I  
> missing out on here?? All of my rigs work fine with or without  
> the socket installed. Can someone help me with this one??

Scott,

Using sockets for RF type IC's seems to be one of those emotional subjects ... like whether QRP rigs should have AGC or not, or whether or not to use Brasso on your NorCal paddles! In life, we sometimes have a bad experience with something, and make it an institution for ever more. I've been guilty of that too.

I have never experienced any problems associated with using IC sockets for NE602's, MC1350's, etc. at 7MHz up to 21MHz. Much above that, then problems begin to occur due to the inductance in the longer lead lengths, RF radiation from the sockets, and signal attenuation. But for 15M and below, the advantages outweigh the possibility of trouble, in my opinion. The additional lead lengths causes several problems, which is why the industry moved to surface mounted components

for todays electronics, which involves very high frequencies (cell phones, GPS receivers, 166MHz mother boards, etc.).

I built my MXM simple receiver using IC sockets inspite of the warning. Works fine. Afterall, the 1st IF is 4MHz (if I remember right) and the 2nd is only 455KHz.

Admittedly, soldering in the IC's will ensure a "tighter" build; using sockets may introduce some noise and extra radiation, but not to the extent that it outweighs the convenience of having socketted active devices. Ask anyone who had to replace the HC240 in their 38-Special!

72, Paul NA5N

-----  
Date: Fri, 27 Mar 1998 00:07:10 -0800  
From: "Alan Kaul W6RCL" <alan.kaul@worldnet.att.net>  
To: <pharden@aoc.nrao.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [6959] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <19980327080715.AAA12148@oemcomputer>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

-----  
> From: Paul Harden <pharden@aoc.nrao.edu>  
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
> Subject: Re: Elmer 101 NE612's/ Sockets????  
> Date: Thursday, March 26, 1998 11:54 PM  
>  
>  
> Ask anyone who had to replace the HC240 in their 38-Special!  
>  
> 72, Paul NA5N  
>

That would be me, Paul is talking about. The frustration is that I got abnormal voltages on several of the pins of two of the devices---the switch and the transmitter. I didn't use sockets. So I almost destroyed the board unsoldering the old chips, then decided to use sockets before I plugged in the new ones. The frustration was magnified, I mean MAGNIFIED, when I discovered the problem persisted. Turned out to be a flat crystal (or one that possibly had shorted out). Moral of the story, use sockets next time if the frequency isn't so critical!!!!!! Yessirreee, Bob, Paul and all-ships-at-sea.

I know there are RF purists out there who disagree with me, but my guess is that even the legendary Super-Elmers won't be able to measure any difference if they had one 40+ with sockets and one 40+ without sockets on the bench in front of them.

73.72 de alan

Alan Kaul, W6RCL, LaCanada-Flintridge, CA  
<http://home.att.net/~alan.kaul/qrp.html>  
[alan.kaul@worldnet.att.net](mailto:alan.kaul@worldnet.att.net)  
[w6rcl@amsat.org](mailto:w6rcl@amsat.org)

-----  
Date: Fri, 27 Mar 1998 05:26:26 -0700  
From: "Phil, K6LS" <k6ls@prolynx.com>  
To: CQC <CQC@MTECHNOLOGIES.COM>, eme <MOON-NET@VM.STLAWU.EDU>, qrp-l <qrp-l@Lehigh.EDU>, vhf <vhf@w6yx.stanford.edu>  
Subject: [6960] K6LS test equipment page.  
Message-ID: <351B9AF1.EFD8E583@prolynx.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Well, It is not complete, I have several things to add from the list on my home computer (I'm at work now) that you all have been kind enough to contribute. It will get a few of you the information you may need. Please help by contributing the URL's of related sites IF you don't see it by Monday night(3/30).

You can get there direct by clicking on this:

<http://www.qsl.net/k6ls/test.html>

or via a link on my home page:

<http://www.qsl.net/k6ls>

73 de Phil, K6LS



-----  
Date: Fri, 27 Mar 1998 06:06:03 -0700  
From: Jess Gypin <jessqrp@concentric.net>  
To: qrp-l@Lehigh.EDU, cw@qsl.net  
Subject: [6961] Bug Stories  
Message-ID: <351BA43B.99E5202@concentric.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi all,

As you may know, I am collecting stories from the folks on the QRP-L list and now am going to solicit the CW list. I recently "inherited" an older Vibroplex original bug. The story from the ham about how he got it and the shape that it was in was interesting. I had to go through some gyrations to get it back to original but now it is there and looks grand. It is about 30-40 years old and won't be leaving this shack.

My 7 year old helped me with the "restoration" of this one and the other night (warning!!!!!!ultra cute mode attack!) he wanted to know if he could take it to bed and sleep with it so he could "ditty dah" with God in his dreams. SNNNNNFFFFFFFFF!  
Ditty dahing is what he calls it when I am on the radio.

So, I am still collecting these stories. Send me the story of your bug and how you got it, what is cool about it, how you used it, how you started out with it etc.....And if you have the capability, send me a picture. I am putting together a web page that I will post the stories on with pictures if you have them.

Thanks and I will let you all know when the stories are up. I hope that the story that Dave Gauding posted is enough of a teaser, the others that I have are as good!

Best72/73

--

Jess N0TFI <><

<http://www.concentric.net/~jessqrp> Personal Home page

<http://qsl.net/N0TFI> Fox Audio Page

-----

Date: Fri, 27 Mar 1998 06:02:12 PST  
From: "Ray Lowe" <wd5dhk@hotmail.com>  
To: qrp-1@Lehigh.EDU  
Subject: [6962] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <19980327140212.459.qmail@hotmail.com>  
Content-Type: text/plain

A potential problem that I have seen several times with sockets is corrosion between the I.C. pins and the socket. I wish I had just a dime for every time that I have seen this. The equipment that I have seen this on was not just R.F. related, as I have had problems with even 741 op amps doing this and causing problems.

72/73

Ray Lowe

WD5DHK

Lancaster, Tx (near Dallas)

<http://members.wbs.net/homepages/w/d/5/wd5dhk.html>

-----  
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-----  
Date: Fri, 27 Mar 1998 09:04:34 -0500  
From: "G.R. Widmayer" <grwidma@edcen.ehhs.cmich.edu>  
To: leinwebe@mcmail.CIS.McMaster.CA  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [6963] Re: Elmer101: parts ID (was: TR switching and low pass filter)  
Message-ID: <351BB1F2.4198297E@edcen.ehhs.cmich.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Glen, perfect! Now I can start to really get "into" the flow of things.

Many thanks,

Gary/N8AYY

-----  
Date: Fri, 27 Mar 1998 09:19:24 -0500  
From: Zack Lau <zlau@arrl.org>

To: qrp-1@Lehigh.EDU  
Subject: [6964] Re: QRP/WAS  
Message-ID: <351BB56C.592C@arrl.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

2X QRP DXCC is really tough--I only have around 45 countries worked.  
I'm not even sure AA2U has done it --Zack W1VT

-----  
Date: Fri, 27 Mar 1998 09:16:48 -0500 (EST)  
From: "James C. Owen, III" <owen@piper.eeel.nist.gov>  
To: qrp-1@Lehigh.EDU  
Subject: [6965] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <33410.owen@piper.eeel.nist.gov>

In message Fri, 27 Mar 1998 06:02:12 PST,  
"Ray Lowe" <wd5dhk@hotmail.com> writes:

> A potential problem that I have seen several times with sockets is  
> corrosion between the I.C. pins and the socket.

I have had the same problems. In a previous job here I did a lot of construction of instrumentation for nuclear sources. I found that the cheap tin plated sockets didn't work very long. I solved the problem by buying only sockets with GOLD pins. They cost only a little bit more and are well worth the cost. Then again I had units with cheap sockets that had no problems. 72 Jim K4CGY qrp-1 #72

-----  
Date: Fri, 27 Mar 1998 09:19:54 -0500  
From: Michael Maiorana <mikemo@ibm.net>  
To: qrp1 <qrp-1@Lehigh.EDU>  
Subject: [6966] Another N/T+ fox makes Advanced  
Message-ID: <351BB58A.4ECA@ibm.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Just had to write to thank the group as a whole for all the help in the past 7 months that I have been part of the list. All the encouragement and information has helped me to pass the advanced exam last night.

Yahooo!!!

Couldn't have done it without you. Being an N/T+ fox was probably the best experience so far in ham radio.

Now to get that code speed up to 20...

--

72 de kf4trd  
Mike Maiorana  
Palm Harbor, FL

"And if I have prophetic powers, and understand all mysteries and all knowledge, and if I have all faith, so as to remove mountains, but have not love, I am nothing"

-----

Date: Fri, 27 Mar 1998 06:26:49 -0800  
From: Jack Parker <Pparker@greatbasin.net>  
To: qrp-l@Lehigh.EDU  
Subject: [6967] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <3.0.1.32.19980327062649.00690920@mail.greatbasin.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Whenever I use IC sockets in critical applications (RF/Pro-audio/CCD Cameras for astronomy/etc.) I use machined-pin sockets with gold-plating. A little more expensive, but the cheap sockets are too prone to difficulty!

72/73,

Jack Parker, W7PW  
QRP-L #1310; 10GHz VUCC #3 (QRPP); 50MHz WAS (QRP); SMIRK #3335; ARRL Life Member DM-09

Immediate past-president: Astronomical Society of Nevada; Member:  
Astronomical Society of the Pacific

"...the time is fast approaching when freedom, public peace, and social order itself will not be able to exist without education."

Alexis de Tocqueville--Democracy in America (1834)

-----

Date: Fri, 27 Mar 1998 08:43:47 -0600  
From: "Evert R. Halbach" <cs-erh@nich-nsunet.nich.edu>  
To: qrp-1@Lehigh.EDU  
Subject: [6968] QRP+  
Message-ID: <AF09AD34BBB@nich-nsunet.nich.edu>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: 7BIT

Hello All!

Can anyone tell me the SSB and CW output of the QRP+? I think the CW is up to 5w adjustable?

thanks Evert WA50JI

Evert R. Halbach WA50JI  
Internet - cs-erh@nich-nsunet.nich.edu  
Phone - (504) 448-4993  
Snail - P.O. Box 2168 Thibodaux, La. 70310  
Home - 117 Sawmill Rd., Thibodaux, La. 70301

-----  
Date: Fri, 27 Mar 1998 08:29:35 -0600  
From: Ed Manuel <n5em@flash.net>  
To: qrp-1@Lehigh.EDU  
Subject: [6969] Elmer101: Printing Postscript Files  
Message-ID: <3.0.5.32.19980327082935.0085c920@pop.flash.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Here's how I print postscript files if it helps anyone.

Transfer file to a diskette.

Take to your local computer / image processing storefront. In Texas/Houston, we have Kinko's and NPI.

These places have rental computers and big, full color laser printers that take postscript, all networked together.

Take your file and send it to the REAL postscript printer.

Typically, I pay around \$ 0.80 - \$1.50 depending on size for a full color laser copy. I've got the technique down so I typically pay around \$ 0.50 for 3 or 4 minutes of computer rental.

Sure beats messing around with postscript translation programs.

And I know that if you live in a town with population less than 500,000 you probably don't have access to a place like this. Houston IS the 4th largest city in the US. And we have a full time, complete amateur radio parts store where you can buy one toroid or the exact resistor you need. If you ever visit here, I'll let you in on our secret. Heck, I'll even meet you there and buy you a soda.

72

Ed Manuel, N5EM  
Houston, Texas  
n5em@amsat.org  
n5em@flash.net

-----  
Date: Fri, 27 Mar 1998 08:49:36 -0600  
From: Ed Manuel <n5em@flash.net>  
To: ke3nv@erols.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [6970] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <3.0.5.32.19980327084936.0085f930@pop.flash.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Three considerations in using sockets.

1. If you are going to use sockets, use GOOD ones. Bad ones (read that cheap ones) can cause intermittent problems down the road. If you don't know a good socket from a cheap one, we can help there.
2. If you use sockets, try to get low profile ones. If your socket is half an inch high, that adds lead length to each pin of your IC and, hence to the circuit. A thin socket with high-quality pins is almost invisible to your circuit.
3. Also, if your rig will be subject to a lot of bouncing, jarring, vibration (you know, hiking, bicycling, snow mobiling), then the socket becomes a possible source of problem where a soldered IC would not.

Of course, it's a lot easier on your beautiful circuit board when you change a bad or questionable IC by removing it from the socket rather than desoldering it.

One of the tried and true diagnostic techniques for circuits with ICs in sockets when they go flakey is to remove and re-seat the ICs in their sockets (essentially, wipe the legs to break up the oxide that has formed on the IC pins).

At 02:20 AM 03/27/1998 -0500, you wrote:

> OK, Im a little confused about the NE602. I have built a whole  
>bunch of QRP rigs and one thing really bothers me about the NE602  
>and weather or not to use a socket with it. I have just seen the  
>fine pictures in Chucks page. There are sockets used with the  
>NE602's. I have sockets installed in all four of my GM-xx with  
>the 602's in them. I have sockets installed in other gear with  
>602's in them. BUT..... I also have built the Ten Tec 1340 and  
>1330 along with the MXM Simple XCVR. Both of the manuals for these  
>rigs warn you not to use a socket. I dont understand... What am I  
>missing out on here?? All of my rigs work fine with or without  
>the socket installed. Can someone help me with this one??

>

> 72, Scott W3CV

>72&73 de Scott Bauer W3CV, Odenton, MD. grid FM19. Formerly KE3NV

> Founder and trustee of W3DV, Woodwardville ARC, "the WARC"

> A local club for the QRP enthusiast

>

> visit my web page at <http://www.erols.com/ke3nv/>

> G-QRP 8773

QRP-L 728

> NORCAL 1094

DL-QRP-AG \*GM\*

> CQC 352

QRP ARCI-8804

> scQRPion 38

AR-QRP 27

> WARC QRP Club

> CW OPERATORS QRP CLUB 484, FISTS, ARRL

>

>

>

>

Ed Manuel, N5EM

Houston, Texas

n5em@amsat.org

n5em@flash.net

-----

Date: Fri, 27 Mar 1998 09:00:49 -0600  
From: Mike - W0TMW <crucis@sky.net>  
To: mcveyp@kingman.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6971] Re: Component bender  
Message-ID: <351BBF21.C46B8515@sky.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I've never heard of any such tool, I've always used my fingernails.

Mike - W0TMW

mcveyp@kingman.com wrote:

>  
> ... --- ... What's the tool called that bends the components so it won't  
> fall through the circuit hole? If I knew what it was called I could search  
> for it, buy it and make my 40m QRP transceiver. Advance thanks.  
> Patrick KC7AIR  
> Kingman, AZ

--

```
=====
Mike Watson, W0TMW           QCWA Mbr# 28651, MidContinent Chapter #35
Raymore, Missouri, USA      Grid: EM28st, ARS# 352, QRP-L# 1849
http://www.sky.net/~crucis   E-mail: crucis@sky.net
=====
```

-----

Date: Fri, 27 Mar 1998 15:06:41 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: csnyder@nextdim.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [6972] Re: elmer101:  
Message-ID: <199803271506.PAA06719@chuck.dallas.sgi.com>

Chuck and the gang,

A couple of notes on the schematics on my web page.

Because of the technology, if you can find or do have a PostScript  
printer you will get much much better resolution of the schematic



on the printout. Also by editing the text file and the line that specifies the linewidth, you can get really fine detail.

The .jpg format is a digitized screen image, thus will not be as crisp when printed. I can increase the size to 1280x1024 but I figure most of the world will have a heart attack when such a large image is downloaded. :-)

If you will let me know just exactly which values on the schematic you are having problems resolving, I'll adjust the position and put them back on the web page. I can reduce the linewidth also, but am just not sure how much this will help. I'll come back later just before lunch TX time and do two versions for people to experiment with.

It's nice that since I wrote the graphics program I can adjust the finer details, but remember this is only a hobby so the problem nits will go to /dev/null (UNIX talk for circular bit bucket). :-)

The function of a schematic is to get as much information in as small a place as possible, what I call "data compression". I'll put a version number on the next one I put out. A couple of components have changed value from what I have. Remember this is WIP (Work In Progress).

I can see from the traffic already generated on the list and the questions this rig may become the second most examined rig in the world, second only to Roy Lewallen's W7EL transceiver. :-)

Again our thanks to Dave Benson, NN1G, for allowing us all to take a close look at his work and making all this possible. It certainly is above and beyond the call of duty. And remember that this is a part of his business.

I should have more pictures of the rig on the web just before lunch. Back to your regulary scheduled posts.

dit dit

Chuck Adams K5FO Dallas,TX CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

-----  
Date: Fri, 27 Mar 1998 15:12:34 GMT  
From: mwattcpa@earthlink.net (Marty Watt)  
To: qrp-1@Lehigh.EDU  
Subject: [6973] FS: 38S unbuilt, case  
Message-ID: <351dc024.65836408@mail.earthlink.net>

MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

I never heard from the guys looking for a 38 special, so I'll put mine =  
back  
out there first come first serve.

I've got an original 38 special, still in shrink wrap. Also have an =  
enclosure  
(Mouser #40UB103) which lists for \$10 and change in the Mouser catalog =  
(it's  
an Eagle enclosure, I believe). Need to sell both, together.

Also have:

2 RS 4AH sealed lead acid batteries \$10 each, no shipping these  
Santec W200 DC-150MHz wattmeter/swr meter, 200/20W scales  
2 Heathkit HM-102 wattmeters, 2KW/200W scales

Items will also be available at the Tullahoma (TN) hamfest this Saturday =  
if  
not sold before then. Make offers ...

--

72 es 73 de Marty, KM7W

-----  
=46ranklin, Tennessee <http://home.earthlink.net/~mwattcpa> =  
=20  
NorCal #2031 -- ARCI #7514 -- QRP-L #0953 -- AK/QRP #098 -- Grid EM65

-----  
Date: Fri, 27 Mar 1998 08:22:25 -0700  
From: wa5whn@juno.com  
To: qrp-l@Lehigh.EDU  
Cc: n7tx@primenet.com  
Subject: [6974] QRPp Emergency Tx & Chronograph {Watch}  
Message-ID: <19980327.082234.3230.0.wa5whn@juno.com>

qrp-lers,

Take a look @ Page 39, "Aviation Week & Space Technology", March 23,  
1998, or as we affectionately refer to this Journal as "Aviation Leak &  
Spy Technology". ;-)

From: Breitling SA, PO Box 1132, 2540 Grenchen, Switzerland, phone: +41 32/654 54 54 FAX +41 32/654 54 00

This is a watch, that has certain very interesting options.

Transmits on 121.5 {30 milliwatts, 48 hours} & another model on 243.0 MHz {25 milliwatts, 24 hours} using 2 - 3VDC lithium batteries. The range is 90 nautical miles {open sea} with search aircraft flying @ 20,000 feet. Your' mileage will vary in rugged mountain terrains.

Gee, I wonder if we could market a similier product for back packers & Wilderness area trekkers.

I have no financial interest in this Corporation, strictly FYI to the Group.

72,...Jay, WA5WHN DM65qd

Albuquerque, NM USA

PS What are Your' plans for the world famous NorCal QRPTTF event, which will be headed Your' way, in less than one month ?

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 27 Mar 1998 10:26:14 -0500  
From: Michael Neverdosky <MichaelN@cycat.com>  
To: qrp-l mailing list <qrp-l@Lehigh.EDU>  
Subject: [6975] Re: elmer101: JPG vs GIF  
Message-ID: <351BC516.E1BE8884@cycat.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

For any line art it is far better to use GIF format than JPG.  
The jpg is best for photos and other continuous tone art, but adds artifacts to line art.

Please put schematics in GIF and pictures in JPG

michael N6CHV

adams@chuck.dallas.sgi.com wrote:

>

> Chuck and the gang,

>

> A couple of notes on the schematics on my web page.

> The .jpg format is a digitized screen image, thus will not be as

> crisp when printed.

-----

Date: Fri, 27 Mar 1998 09:31:13 -0600

From: Mike - W0TMW <crucis@sky.net>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [6976] Battery chargers

Message-ID: <351BC640.FF4DC779@sky.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I don't remember if I've asked this before...

I don't use batteries, I've several regulated PS from 1Amp up to 25Amps. What do you use to recharge a gel cell. A regular lead-acid recharger such as you'd use for you car battery? A homebrew recharger?

Mike - W0TMW

--

=====  
Mike Watson, W0TMW                      QCWA Mbr# 28651, MidContinent Chapter #35  
Raymore, Missouri, USA                Grid: EM28st, ARS# 352, QRP-L# 1849  
<http://www.sky.net/~crucis>      E-mail: crucis@sky.net  
=====

-----

Date: Fri, 27 Mar 1998 09:12:03 -0700

From: gsurrency@juno.com (Gary L Surrency)

To: wd5dhk@hotmail.com

Cc: qrp-l@Lehigh.EDU

Subject: [6977] Re: Elmer 101 NE612's/ Sockets????

Message-ID: <19980327.091204.7350.1.gsurrency@juno.com>

Ray Lowe, WD5DHK wrote:

>A potential problem that I have seen several times with sockets is  
>corrosion between the I.C. pins and the socket.

Must be that Gulf coast humidity - huh Ray? ;-)

Not a problem in AZ, but it was when I lived in FL. Heath used poor quality sockets for IC's in their kits and on their PC card edge connectors. I was always cleaning or replacing those things when I lived there.

If you use good quality gold plated IC sockets in these environments, you should have a lot less trouble. Otherwise, the tin-plated ones are just fine.

72,

Gary Surrency AB7MY

S&S TAC-1(40&80m) ARK30 38S OHR100 w/KC-2 HW-9 TS-570D

QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

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Or call Juno at (800) 654-JUNO [654-5866]

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Date: Fri, 27 Mar 1998 09:11:41 -0700  
From: gsurrency@juno.com (Gary L Surrency)  
To: qrp-l@Lehigh.EDU  
Subject: [6978] To socket or not?  
Message-ID: <19980327.091204.7350.0.gsurrency@juno.com>

It's been said here before, but since there are some new list members, it's probably worth mentioning again.

If you suspect you have a bad IC and it is soldered in because you didn't use a socket, cut off all the pins of the IC with some side cutters before you attempt to desolder it. In other words, sacrifice the bad IC - not the PC board. That way you'll be able to desolder and pull out the pins one-by-one. Trying to desolder an 8 to 24 pin IC simply isn't worth trashing the PC board and all the other components on it.

Clean out the holes with a Solder Sucker desoldering tool, a vacuum bulb, or some Soder Wick and the PCB will be good as new and ready for the new

IC or socket - if you don't want to have to do this all over again.

IC's are much cheaper than fully stuffed PCB's. ;-)

72,

Gary Surrency AB7MY

S&S TAC-1(40&80m) ARK30 38S OHR100 w/KC-2 HW-9 TS-570D

QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: 27 Mar 1998 11:05:41 -0500  
From: Glen Leinweber <leinwebe@mcmail.cis.mcmaster.ca>  
To: astone@erols.com  
Cc: qrp-l;;  
Subject: [6979] Re: Elmer 101: More Questions  
Message-ID: <1998Mar27.110541-0500@[130.113.234.7]>

Ron asks about bypass capacitors, particularly C101(0.1uf) and C105(0.01uf).  
Why are they different values, in parallel?

Ron has a good handle on the answer when he suggests that self-resonance  
may have something to do with it.

Every capacitor that brings its two connections to the outside  
world with leads has inductance. Don't forget that a straight wire, or a  
printed-circuit trace has some small inductance that tends to destroy  
a bypass capacitors' function.

Let's compare the capacitive reactance and inductive reactance  
at various frequencies. We have a series circuit like this:

```

-----nnnnnn-----||-----nnnnnn-----
      inductor1      cap||      inductor2
```

Inductor1 is the sum of printed circuit trace inductance plus the  
capacitors' lead inductance. Then we have the capacitor itself, Then there  
is inductor2 consisting of the other lead, plus any printed circuit trace  
inductance. Functionally, we could add inductor1 and inductor2 together  
so we'd have a series LC circuit.

For a bypass capacitor to be effective, we want to have a VERY  
LOW impedance from one end to the other, so that any AC signal is  
shorted out (usually to ground). LOW impedance = short circuit.

At low frequencies, the inductive reactance is very small. That's good. But the capacitive reactance isn't all that small. That's not so good. A 0.1uf capacitor will have a lower reactance than a 0.01uf capacitor. So at low frequencies, the 0.1uf is more effective at bypassing.

At higher frequencies, the inductive reactance starts to be noticed. At one particular frequency (and only one), the inductive reactance resonates with the 0.1uf capacitor. Total reactance is wonderfully low for the 0.1uf capacitor here.

At still higher frequency, the reactance of the 0.1uf is now rising, because its inductance now dominates. Now the 0.01uf is likely more effective than the 0.1uf at bypassing.

At a higher frequency still, the 0.01uf resonates with its series inductance, and performs bypassing extremely well. The 0.1uf capacitor is decreasingly effective now.

At yet higher frequency, the inductive reactance now dominates everything, and bypassing is poor for both capacitors.

Ron also asks why T/R diodes are used in series.

While receiving, these diodes must remain dormant. NO radio signals coming in from the antenna should be large enough to allow these diodes to conduct current. We have a low-pass filter between these diodes and the antenna. So HF signals above 7 Mhz. will be attenuated by this filter. BUT, AM broadcast signals sail through this filter unattenuated. These can be VERY large, and could turn on a single diode set easily.

Why is this bad? Because lots of harmonics are generated as the diodes turn on and off every microsecond or so. Some of these harmonics may appear within the 40M band. These diodes, if conducting also act as broadband MIXERS. So not only can the receiver be adversely affected by direct harmonics, but by mixing products too. Not good at all.

Yes, a single pair of diodes would be more effective at limiting the transmit signal. But double pairs of diodes are less likely to turn on while receiving. Remember, these diodes are ahead of the RF attenuator variable resistor - the only way you could keep the diodes off is with a tuner, or a less-effective antenna (or tuned) antenna.

Now here's a point that few have noticed: the final amp is connected while receiving too. In the PIXIE, the final amp acts as the receiving mixer. Doesn't it generate nasty mixing harmonics here too?

No, because critical transistor junctions all have very large reverse bias on them - too large for any RF to overcome and cause the junction to conduct current.

Glen VE3DNL    leinwebe@mcmaster.ca

-----  
Date: Sat, 28 Mar 1998 00:14:24 +0800  
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>  
To: qrp@pandora.lugs.org.sg  
Subject: [6980] Good band conditions  
Message-ID: <351bd061.pandora@pandora.lugs.org.sg>

Hi,

I turned on the rig today (TS-570D) and listened around 20M. I heard this really big signal, XE2/NR70 booming in at S9. He was working another station and I tail-ended and got him right away. He gave me a 579 report and I was kinda happy because Mexico is a long ways from Singapore. That was until I saw the power setting in the logger (which reads the power from the rig). I had left it at 5W and forgotten about it.

Well now, how about that, 10,311 miles at 5W. And 579 to boot! Looks like the band conditions are really picking up, and if this is the sign of things to come, we're in for some hot bands!

Have fun all!

72 de 9V1ZV Daniel

--

```
+-----+
| Daniel Wee | daniel@pandora.lugs.org.sg |
| 9V1ZV      |                               |
| QRP-L #667 | 9V1ZV@amsat.org                 |
+-----+
```

-----  
Date: Fri, 27 Mar 1998 16:22:08 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: mcveyp@kingman.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6981] Re: Component bender  
Message-ID: <351BD230.285A@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Patrick, I've read through all the qrp-l responses and don't think they have your question right.

There are two basic comercial tools, one that you use to produce



a 90 degree bend and allows the part to fit easily onto the pc board and flat. The other part produces a semi-circle in each leg, thereby allowing the part to be suspended a short distance above the board. Many silver Mica caps I use come that way from the manufacture.

For homebrew work and one-off projects, I'm not sure you need that particular 'crinkle' in the leads. But if you need a particular and repeatable leg inductance in a capacitor, you can bend these with miniature pliers.

At home I have a plastic, tapered lead-bending tool. I don't use it very often, but it does come in handy if you have lots of resistors and diodes to install. Not a required tool.

I believe the tool used to wrinkle the legs of certain parts is some type of crimper.

I don't have the name. Perhaps you can view a catalogue having silver-mica caps in it and peruse the "lead trim" options.

Hope I've helped in some obscure, qrp way.

-Ed

mcveyp@kingman.com wrote:

>

> ... --- ... What's the tool called that bends the components so it won't  
> fall through the circuit hole? If I knew what it was called I could search  
> for it, buy it and make my 40m QRP transceiver. Advance thanks.

> Patrick KC7AIR

> Kingman, AZ

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----

Date: Fri, 27 Mar 1998 16:41:08 GMT

From: adams@chuck.dallas.sgi.com (Chuck Adams)

To: qrp-l@Lehigh.EDU

Subject: [6982] Web Page and Mystery Paddle

Message-ID: <199803271641.QAA07528@chuck.dallas.sgi.com>

Gang,

As per recommendations made, I have now put another copy of the SW-40+ schematic on the web page in .gif format. Let me know how this works compared to the .jpg format on printing.

I did print out both versions and .gif does seem to do better.

Also, near the bottom of the main web page are two new photos (scanned in) that I had received in the mail. Photos of a new Iambic Paddle weighing in at 5 pounds (2Kg+) that is done by an amateur machinist. This same individual, who will shoot me if I give out additional info at this time :-), is planning on starting production of these puppies in the fall timeframe. This same individual owns the other famous paddles, so does know his paddles, and plans to make this one the best of the best. But before you the reader do the "QRP-L patented happy dance" you should know that this item will not be inexpensive. This is one of those "I love CW and cost is no object and Santa Claus is gonna be good to me this year 'cuz I've been a good kid...." type gifts for you to you. ;-)) So I've started the couch-search, empty pants pockets, and desk drawer search for loose change and running along the highways picking up aluminum cans..... ;-)) Exercise can be profitable. :-))

I don't have dimensions, but it does use magnetic fields like the Mercury paddle, etc. Looks like 1997 and 1998 are the years of the paddles along with all the other stuff going on.

FYI

Chuck Adams K5FO Dallas,TX CP-60  
<http://reality.sgi.com/adams> [adams@sgi.com](mailto:adams@sgi.com)

-----  
Date: Fri, 27 Mar 1998 11:41:57 -0500  
From: David Maliniak <[dmaliniak@penton.com](mailto:dmaliniak@penton.com)>  
To: [qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)  
Subject: [6983] Component lead bending  
Message-ID: <[351BD6C6.7643@penton.com](mailto:351BD6C6.7643@penton.com)>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I use a small needle-nose plier for this job... works for me quite well.

Never saw the need to purchase a specialized tool.

72, David N2SMH  
Glen Rock, NJ

-----  
Date: Fri, 27 Mar 1998 08:52:11 -0800  
From: "Frank A. West" <ke6vhm@earthlink.net>  
To: <adams@chuck.dallas.sgi.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [6984] Re: elmer101:  
Message-ID: <199803271645.IAA23722@denmark.it.earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Chuck,  
    jpg worked fine for me. Large monitor helped.  
Keep up the good work.  
72 de Frank

> A couple of notes on the schematics on my web page.  
>  
> Chuck Adams K5FO Dallas,TX CP-60  
> <http://reality.sgi.com/adams> adams@sgi.com  
>

-----  
Date: Fri, 27 Mar 1998 10:49:48 -0600  
From: Kevin Muenzler--WB5RUE <wb5rue@stic.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>, "'crucis@sky.net'" <crucis@sky.net>  
Subject: [6985] RE: Component bender  
Message-ID: <01BD596E.10E8AA80@muenzlerk.uthscsa.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

On crucis@sky.net, Mike - W0TMW[SMTP:crucis@sky.net] wrote:  
> I've never heard of any such tool, I've always used my fingernails.  
>  
> Mike - W0TMW  
>  
> mcvey@kingman.com wrote:

```

> >
> > ... --- ... What's the tool called that bends the components so it won't
> > fall through the circuit hole? If I knew what it was called I could search
> > for it, buy it and make my 40m QRP transceiver. Advance thanks.
> > Patrick KC7AIR
> > Kingman, AZ
>
> --
> =====
> Mike Watson, W0TMW          QCWA Mbr# 28651, MidContinent Chapter #35
> Raymore, Missouri, USA      Grid: EM28st, ARS# 352, QRP-L# 1849
> http://www.sky.net/~crucis  E-mail: crucis@sky.net
> =====
>
>

```

For those of you who have little or no nails you can go to Radio Shack and buy a set of hemostats. They have a very thin tip so can bend very small leads.

Kevin, WB5RUE

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-----
Date: Fri, 27 Mar 1998 11:50:05 -0500
From: "James R. Johns" <jrjohns@mail90.mitre.org>
To: qrp-l@Lehigh.EDU
Subject: [6986] Re: Component bender
Message-ID: <3.0.3.32.19980327115005.027a2b34@mail90.mitre.org>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

```

Back in the old days when Heath Kit was still around, their PC boards were designed so that a resistor placed up against the top of the PC board and the lead pushed down around the thickness of the board, would provide exactly the correct lead spacing for the resistor holes.

Very bad text art below:

```

      |
      |
      |
    ---
    |  |
    |  |
    |  |
    |  |

```

-----|=----- PC Board  
-----|----- PC Board  
----- Lead

Now PC board designers are becoming more creative with lead spacing and you should use a lead bending fixture (available for 1/4 and 1/2 Watt size resistors) which can be obtained from a wide variety of sources for about \$2 to \$5 each. Have fun.

Jim Johns KA0IQT  
jrjohns@mitre.org

-----  
Date: Fri, 27 Mar 1998 17:25:27 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-1@Lehigh.EDU  
Subject: [6987] Re: lead bending  
Message-ID: <199803271725.RAA07662@chuck.dallas.sgi.com>

I have a comment and a question, not necessarily in that order.

What are you using (you being you) to bend leads? There is a difference between needle nose pliers and chain nose pliers. I never use needle nose pliers. Period.

Chain nose pliers, used most often by jewelers for jewelry work, have very fine points and can be found in some real neat places. I was on a site seeing trip in NM and went into a shop that was selling beads for making necklaces and wrist thingies. Seemed to be a fad/in thing/hobby for the teens. What got my interest was a set of chain nose pliers in the front store window. These sold for about \$7 or so and were of good quality. I use them or another similar pair when building stuff. Also other hobbies like rock hounds probably have similar tools in their shops.

Comments:

1. You know you build too much when you can look at a PC board, pick up the part and bend the leads to exact form

without measuring. :-)

2. In the SW-40+ Dave places most of the resistors in the vertical position to minimize board space, thus the lead bender will not be needed here.
3. In the TenTec 1254 the lead spacing was 0.4", so I used a plastic lead bender similar to that in Mouser catalog and it made resistor and inductor placement somewhat faster. I think OHR and S&S use the standard 0.4" spacing, but don't quote me on that.

If one is going to build in their lifetime only one or two kits then all these neat little tools are handy and will not most likely pay for themselves in time and energy. You can easily spend more money on tools than on a number of kits. We all know about that. :-) To justify the cost of one \$300 O-scope means a commitment to experimenting quite a bit and we haven't even gotten to the RF generator, Freq counter, transistor tester, drill press, etc..... See chapter 25 of the ARRL Handbook for the basic tools to start out with.

On the topic of tools. Remember the 1254? TenTec sent me the part to replace the inductor. Then they had me reset the two tunable inductors to a new voltage value. Well, big mistake. I use a slug tuning tool with composite handle and metal blade. Well, the iron core slot broke on one inductor and I was being careful. Now I have to figure out an extraction method and find a replacement HEX tunable one. I'm sure some have 'been there done that'. I may have no choice but take the shields off, unsolder the variable inductor, remove the core and replace it, but I may have no choice. :-( Bummer.

In looking at the famous Paul Harden's "Data Book for Homebrewers and QRPers" on 'Inductors, Variable' the page showing the Toko Type 7P and 7PH inductors they do not list the core diameter. There are several diameters of cores for these type inductors from various manufacturers and there are several sizes in the TenTec kit. Looks like a trip to the parts place.

FYI

Chuck Adams K5FO Dallas, TX CP-60  
<http://reality.sgi.com/adams> [adams@sgi.com](mailto:adams@sgi.com)

-----  
Date: Fri, 27 Mar 1998 17:26:35 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: jrjohns@mail90.mitre.org  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6988] Re: Component bender  
Message-ID: <351BE14B.36F0@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I forgot to mention: For those parts requiring space above the board AND the leads are too short OR the resultant lead inductance resulting from a loop-crimp is prohibited, small glass beads are used in the industry for the proper spacing.

FYI from a programmer :) A and (B OR C)

-Ed

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----  
Date: Fri, 27 Mar 1998 12:41:31 -0500  
From: "Ed Hare, W1RFI" <ehare@arrl.org>  
To: qrp-l@Lehigh.EDU  
Subject: [6989] RI, Delaware and WAS  
Message-ID: <351BE4CB.1E9B@arrl.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Tellefsen Bob-CNSE97 wrote:

> Ken:

> If you can get on the air from RI and MAKE YOURSELF HEARD in CA, you  
> will be a hero, a paragon of all the QRply virtues, and a first class  
> operator. (Boy, can this kid trowel it on or not?)

> What time of day (or night) do you folks hear CA best (assuming you do  
> at all)?

> I guess that ought to determine when an effort would be worth making.

> Many thanks for thinking of us.

> 72, Bob N6WG and Ol' Kenwood

I have often noted that CA seems to be a hard trip at the peak of the daylight hours, but peaks about at about 2000-2400 Z. Toward the end of the day, I have worked CA with 250 milliwatts with ease. It does, however, get spotty, with profound changes in signal strength.

Perhaps the best way to do it is to use one of the propagation-analysis software programs to figure out the peak time.

Speaking of which, I am driving to Delaware on 4/25. By my best guess, I should be arriving in the state sometime between 1800 and 2200 Z (depends on my travel schedule.) I can also do skeds after 2200 Z. I will return home on 4/26, starting back about 1800 Z or so, driving back home until about 2400 Z or so. I will have 20 and 40 M, but don't be too enthusiastic about a 2XQRP to the west coast on 40; the antenna losses are just too high on that band. For those who need the states, MD, NJ, NY and CT are all along the route. Might have a great shot at them on my return on Sunday.

Let me set up the Subaru with my mobile setup and see if anyone needs DE 2XQRP. I usually run QRO/M, but will go /QRP for those who need the state. I will firm this up with the list around mid April and get a list of those who need DE or MD /QRP.

If this works out, I will think about a RI expedition later in the year. :-)

72 from ARRL HQ,  
Ed Hare, W1RFI  
ARRL Lab

-----  
Date: Fri, 27 Mar 1998 10:43:23 -0700 (MST)  
From: Joe Gervais <vole@primenet.com>  
To: qrp-1@Lehigh.EDU  
Subject: [6990] QRPTTF Plans?  
Message-ID: <199803271743.KAA21838@usr07.primenet.com>

Howdy Folks,

QRPTTF '98 is just around the corner, and I was hoping to build a list of all border operations you folks currently have planned. Could you please



email your planned site/states/countries to me?  
For that matter, plans for ANY field operation,  
border or not, would be great.

So far I know of the following border expeditions:  
Four Corners operation (AZ/NM/UT/CO), the NM/TX(/XE?)  
crew, and the AZ/NV gang.

I'll keep a running list and post it here as QRPTTF  
closes in. Thanks! Figure it'll be nice for everyone  
to have a "Hit List". Anybody operating from NE or  
RI is guaranteed to be very popular. :-)

April 25th is the day, folks! Get ready to celebrate  
the return of normal weather and sunspots!

Cheers de AB7TT,

-Joe, vole@primenet.com, QRPTTF Contest Dude, NorCal,  
AZ ScQRPions, and many other fine, furry groups....

"Why do they call it common sense when it seems  
to be so uncommon?" -- Me

-----  
Date: Fri, 27 Mar 1998 13:56:57 -0500 (EST)  
From: Chris Cartwright <ccart@dns.vidtel.com>  
To: Chuck Adams <adams@chuck.dallas.sgi.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [6991] Re: lead bending  
Message-ID: <Pine.LNX.3.93.980327135003.928D-100000@dns.vidtel.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 27 Mar 1998, Chuck Adams wrote:

> We all know about that. :-) To justify the cost of one  
> \$300 O-scope means a commitment to experimenting quite a  
> bit and we haven't even gotten to the RF generator, Freq  
> counter, transistor tester, drill press, etc.....

No comment :)

> handle and metal blade. Well, the iron core slot  
> broke on one inductor and I was being careful. Now I have to  
> figure out an extraction method and find a replacement

Well, if it isn't \*too\* crumbled I've had decent luck using a pencil eraser (cut down to just fit in the form) and then using a fair amount of downward pressure while "unscrewing" it. Or I guess you could try and pulverize it and take out the chunks :)

Also, when I don't have a "twiddle stick" that is the right size I usually pare down a round tooth pick, and have at those little oddball slugs. I haven't broken one in quite a while, but I remember that sinking feeling when you hear/feel/sense that little crunch that means it's going to be a long night. 72 es gl

-- Chris Cartwright, Technical Engineer | ccart@vidtel.com --  
-- N3XRV ARRL-VE QRP WAS 28/13(w/c) | http://dns.vidtel.com/~ccart --  
-- QRP-L #655 NORCAL #1891 QRP-ARCI #???? NJ-QRP #105 LIQRP #???? MDmW #5 --

-----  
Date: Fri, 27 Mar 1998 10:13:19 -0800  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: <adams@chuck.dallas.sgi.com>  
Cc: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [6992] Re: lead bending  
Message-ID: <01bd59ac\$05725d70\$309f5ecf@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

>...In looking at the famous Paul Harden's "Data Book for  
>Homebrewers adn QRPers" on 'Inductors, Variable' the page  
>showing the Toko Type 7P and 7PH inductors they do not list  
>the core diameter. There are several diameters of cores  
>for these type inductors from various manufacturers and  
>there are several sizes in the TenTec kit....

And a couple dozen different types of core materials, most of which look the same but have enormously different characteristics. Easiest solution: Remove the broken core by breaking it out; get a new identical replacement coil; remove its core by unscrewing it completely; screw that core into the old coil on the PC board.

Mike K1MG

-----  
Date: Fri, 27 Mar 1998 13:18:27 -0500  
From: "John J. McDonough" <jjmcd@mdn.net>  
To: <gsurrency@juno.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [6993] Re: Elmer 101 NE612's/ Sockets????  
Message-ID: <199803271817.2726900@midland2.mdn.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

> From: Gary L Surrency <gsurrency@juno.com>; owner-qrp-1@Lehigh.EDU  
>  
> Ray Lowe, WD5DHK wrote:  
>  
> >A potential problem that I have seen several times with sockets is  
> >corrosion between the I.C. pins and the socket.  
>  
> Must be that Gulf coast humidity - huh Ray? ;-)

Not just the socket, but the chip, too. Take a look at the leads of an IC that's been sitting in the junkbox for 5 or 10 years. If it's one of the 'good' ones with the silver plating, worse yet! I haven't seen an IC with gold plated leads in years, but if you don't want to be reseating ICs, you need the gold leads as well as the gold socket.

That being said, tho, I don't think it's a real issue in amateur gear. Rarely to you have more than a handful of ICs in a rig. This means your odds of having a problem are a lot lower. In a computer where you have hundreds of ICs, sockets ARE going to cause you problems - guaranteed. The up side of this, tho, is that you know enough as soon as something is a bit flaky, reseal the chips. But if you have one or two lonely socketed ICs in a rig, the one time in five or ten years it gets you, you won't have any idea what it is!

72/73 de WB8RCR

-----  
Date: Fri, 27 Mar 1998 13:24:09 EST  
From: SABorns <SABorns@aol.com>  
To: qrp-1@Lehigh.EDU  
Subject: [6994] Re: broken coil slugs  
Message-ID: <8070b871.351beecb@aol.com>  
Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Gang,

Radio Shack carries a inductor assortment that contains a variety of tuned coils.

I have frequently found replacement slugs for the ones I have inadvertantly shattered.

73, Steve K8IDN

-----  
Date: Fri, 27 Mar 1998 10:29:52 -0800  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: <qrp-1@Lehigh.EDU>  
Subject: [6995] Pizza tonight in Bay Area  
Message-ID: <01bd59ae\$559d5dc0\$630a0d0a@doug.dpol.k12.ca.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Pizza get together tonight in the bay area. So far have committments from:  
Gary Diana  
Chris Trask  
Dave Fifield  
Doug Hauff  
Mike Gipe???  
Doug Hendricks

All are invited for a QRP get together to have some Pizza, have fun and fellowship with friends. We will meet at the Round Table Pizza in the shopping center behind the Burger King at the corner of Grant Road (237) and El Camino Real. If you are coming from 101, when you reach El Camino Real, turn left and take the first exit to your right. It is a drive way about 203 yards, 2 feet 7 1/2 inches from the corner. Look straight ahead and you will see the Round Table Pizza. For those of you who use the metric system that is 186.4233 meters. We plan on meeting at 6:30. If anyone has a copy of the April CQ, please bring it. 72, Doug, KI6DS

-----  
Date: Fri, 27 Mar 1998 13:27:07 -0500

From: "John J. McDonough" <jjmcd@mdn.net>  
To: <gsurrency@juno.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [6996] Re: To socket or not?  
Message-ID: <199803271826.2729300@midland2.mdn.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

> From: Gary L Surrency <gsurrency@juno.com>; owner-qrp-1@Lehigh.EDU  
>  
> IC's are much cheaper than fully stuffed PCB's. ;-)

Easy for you to say ... 'near Phoenix'. When you're in Phoenix, or Houston or New York City, you can just run down to the local radio store for another IC. For those of us in the boonies, sacrificing that IC also means a week of waiting.

Still, it's very good advice. it borders on impossible to salvage both the IC and the circuit board. But probably each of us has to loose an expensive board before we believe it!

72/73 de WB8RCR

-----  
Date: Fri, 27 Mar 1998 13:40:17 EST  
From: PDouglas12 <PDouglas12@aol.com>  
To: qrp-1@Lehigh.EDU  
Subject: [6997] Lead benders and cores  
Message-ID: <961fefc4.351bf293@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Guys,

If you are a newcomer to kit building, be assured, you DO NOT need a lead bending jig to build any of the kits on the present market. I never even heard of a manual lead bender until today, and I have built almost every kit on the market. Hint: You can use your fingers to bend component leads! A lead bending device might be fun to use, but goodness gracious, you don't NEED one any more than you NEED a Corvette.

On broken cores: These are the original source of cursing. Before cores broke inside IF transformers, there was no real need for cursing. In the cave days, before Radio Shack had solder braid, removing an IF transformer was a

catastrophe which led to the modern phenomenon of bad words. The PC rarely survived. Now, with the advent of solder braid for the masses, there is a better than 50/50 chance that you can unloosen (good technical term, right?) the can and pins without having the pads lift off, and you can replace the offending transformer. Also, of course, once you have the "can" off the board, you can usually get the core out from the bottom, when it wouldn't come out through the top, without destroying the transformer itself; making it possible to change the core, without having to buy another transformer.

Anyway, guys, the Elmer/SWL 40+ has these IF transformers (3 of them). So be very careful and gentle when you adjust them. Otherwise, see the paragraph above. These transformers are the price you pay for having fewer and less complex toroids in the 40+. On the other hand, mine were perfect, tuned easily and made construction time shorter. So, you pay your money.....

72,

Preston Douglas WJ2V

-----  
Date: Fri, 27 Mar 1998 19:09:24 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: PDouglas12@aol.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [6998] Re: Lead benders and cores  
Message-ID: <351BF964.5E1A@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

PDouglas12 wrote:

<snip>

>

> On broken cores: These are the original source of cursing. Before cores broke  
> inside IF transformers, there was no real need for cursing.  
I believe that!

> ...<snip> removing an IF transformer was a  
> catastrophe which led to the modern phenomenon of bad words.

I have destroyed two IF CANS in my Hammarlund HQ-145X (with 24 hr clock!),  
and the radio sits under my workbench waiting for me to fix it some day.

The HQ-145X was a great general coverage Receiver! XTAL filters...

but I digress. Ultra stable BFO!!! Oh, digressing again :)....

Be careful with those tunable slugs, it's not a pretty sight to find the powder leaking from the threaded coil form....

And it was only momentarily satisfying to use Gas pliers to rip the old can out...

Now you know 'the rest of the story'.

P.S. Yes, I bought that assortment of coils from Rad. Shack, tried many slugs in a homebrewed IF coil, came close, but without the litz wire it was tough. Project is abandoned. Nice Hammarlund HQ-145X foot stool for sale....

-ED

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----  
Date: Fri, 27 Mar 1998 13:09:32 -0600 (CST)  
From: jdenison@morelr.com (JOEL DENISON)  
To: qrp-l@Lehigh.EDU  
Subject: [6999] V or H expanded some :-)  
Message-ID: <199803271909.NAA11939@m20.morelr.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

High Everybody:

I've been reading some on the v or h ant radiation posting and again I will insist that The FIRST HOP is what is ALL IMPORTANT here... the first hop of a vertical will be longer than the first hop of a dipole.

The vertical will also put more energy at the lower angle than the dipole.

Given a definite point or origin the lower angle will travel farther and be bounced back to earth farther than a high angle of radiation...v or h

The vertical is also more sensitive on receive on the lower angles than a dipole...

Evidently I need one of each to take advantage of existing conditions...

Amazing what a flashlight and a mirror can show... :-)

ant 101 student

72 joel wa5cvm

God Bless

Joel

WA5CVM  
Joel Denison  
PO BOX 542  
Strong, Maine 04983  
jdenison@morelr.com

Gentlemen don't Cry, They QSY :-)  
Gentle Lady (RC Sail Plane)(049 engine - start)  
40 mtr loop up 50ft  
QRP ARCI 4066 NEW ENGLAND QRP 476 QRP-L 765  
AK/QRP 109

-----  
Date: Fri, 27 Mar 1998 12:11:17 -0700  
From: "Ron Smith" <resmith@primenet.com>  
To: "qrp-l@lehigh.edu" <qrp-l@Lehigh.EDU>  
Subject: [7000] Off Topic Question  
Message-ID: <0da201bd59b4\$356f16a0\$0822a5ce@primenet.com.primenet.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Sorry for the off topic stuff, but awhile back I thought I saw something listed by a member of the group relating to ham programs available for the RedHat version of Linux. Am I going nuts or what? If anyone is using Linux with amateur radio or knows of a RedHat compressed file for hams, please e-mail me.

Also, please don't send me mail about the Ham-HOWTO - been there, done that, etc.

Thanks all...

72

Ron Smith  
Amateur Radio Callsign: KD7VD  
Boise, Idaho - Grid DN15VN  
E-mail: resmith@primenet.com  
Ham Home Page: <http://www.qsl.net/~kd7vd>  
KnightLite: Sir Kinky Knight of the West  
ARCI #9580.....NorCal#????.....QRP-L #1291  
AK-QRP #352...AR-QRP #220...ARS #347  
HI-ARP #34.....NW-QRP #???

-----



Date: Fri, 27 Mar 1998 14:25:00 EST  
From: AndyEmert <AndyEmert@aol.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7001] SG2020  
Message-ID: <d1eff4f.351bfd0e@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Has anyone had any experience with the SG-2020 as in used it, own it, etc.? I plan to buy a mobile HF Rig soon and it seems like a real possibility but I would really appreciate some insight from a few experienced users. Email direct to me is fine.

Thanks,  
Andy  
KF4RKQ

-----  
Date: Fri, 27 Mar 1998 11:33:42 -0800  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: <AndyEmert@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [7002] Re: SG2020  
Message-ID: <01bd59b7\$404cbca0\$309f5ecf@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Brace yourself, Andy. Here they come.

-----  
Date: Fri, 27 Mar 1998 14:42:09 -0500 (EST)  
From: "J. Skalski" <jskalski@acsu.buffalo.edu>  
To: "Michael A. Gipe" <mgipe@reliablemeters.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7003] Re: SG2020  
Message-ID: <Pine.GS0.3.96.980327144151.2817A-1000000@joxer.acsu.buffalo.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hey, it's not April 1 yet.

73,

Jim N2GO  
The Buffalo QRP CONNECTION  
ARCI #9013 QRP-L #381  
Life member ARRL  
jskalski@acsu.Buffalo.EDU

-----  
Date: Fri, 27 Mar 1998 11:59:34 -0800 (PST)  
From: "S. Lee" <slee@u.washington.edu>  
To: AndyEmert <AndyEmert@aol.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7006] Re: SG2020  
Message-ID: <Pine.A41.3.95b.980327113954.104738B-1000000@homer18.u.washington.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

I heard what was purported to be an SGC-2020 working CW, what, two weeks ago tomorrow, Saturday. Believe it was a production model in the hands of an SGC consultant/employee. The NW-QRP Club has a net running Saturday mornings at 1530 UTC. Perhaps SGC is paying attention to this list and there'll be a check-in tomorrow morning. Just in case they are...the frequency is around 3.71 MHz plus-r-minus :)

de AB7HI, Stephen Lee, Federal Way, WA  
slee@u.washington.edu

On Fri, 27 Mar 1998, AndyEmert wrote:

> Has anyone had any experience with the SG-2020 as in used it, own it, etc.? I  
> plan to buy a mobile HF Rig soon and it seems like a real possibility but I  
> would really appreciate some insight from a few experienced users. Email  
> direct to me is fine.  
> Thanks,  
> Andy  
> KF4RKQ  
>  
>

Date: Fri, 27 Mar 1998 15:10:33 -0500  
From: Bill Howell <bhowell@mail.utexas.edu>  
To: qrp-l@Lehigh.EDU  
Subject: [7007] Re: goat clusters  
Message-ID: <199803272010.PAA11766@nss4.cc.Lehigh.EDU>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

john - n0hj Wrote:

Tuna and Chicken?? Good God Almighty, I'm hungry !!!!

john - n0hj

got any goat clusters?? Just checking!

-----  
John... you must be referring to Hot Buttered goat clusters.

You realize of course, that they are not available in Sector R.

HW?

Bill Howell  
University of Texas at Austin  
Performing Arts Center  
Electronic Maintenance  
N5ALO QRP-L #415

-----  
Date: Fri, 27 Mar 1998 12:18:58 -0800 (PST)  
From: Monte Stark <ku7y@dri.edu>  
To: Chuck Adams <adams@chuck.dallas.sgi.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7008] Re: broken slugs  
Message-ID: <Pine.SOL.3.96.980327121521.10361A-100000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Chuck and all,

One trick I learned while working at a radio shop....

If the slug is the least bit hard to turn, heat the coil a little to soften the wax. This will save breaking many of the little critters.

When you replace one, if it's a bit too small, put a little piece of dental floss in with it. That will take up some room but still let you turn it. And it doesn't change the value of the coil.

I have even been known to put a second slug in to get the radio to tune. That doesn't always work, but will sometimes.

cul,

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada.....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Fri, 27 Mar 1998 20:23:22 GMT  
From: mwattcpa@earthlink.net (Marty Watt)  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [7009] Re: To socket or not?  
Message-ID: <351e0a15.84768357@mail.earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

On Fri, 27 Mar 1998 13:27:07 -0500, "John J. McDonough" <jjmcd@mdn.net> = wrote:

>> From: Gary L Surrency <gsurrency@juno.com>; owner-qrp-l@Lehigh.EDU  
>>=20  
>> IC's are much cheaper than fully stuffed PCB's. ;-)  
>  
>Easy for you to say ... 'near Phoenix'. When you're in Phoenix, or =  
Houston  
>or New York City, you can just run down to the local radio store for  
>another IC. For those of us in the boonies, sacrificing that IC also =

means

>a week of waiting.

Better idea ... order a couple extra at the same time as your kit. More =  
for  
more often used IC's (NE602/612 for example). You'll use them =  
eventually, and  
no waiting on the parts for "busted replacements". Then you can reorder =  
when  
you run short.

I duplicated the IC's in the 38 special in a Mouser order, and was =  
AWFULLY  
glad I did! Whole thing cost \$10 including shipping ...

Really, it's an inexpensive way to build up your parts bin, if you think =  
of  
it.

--

72 es 73 de Marty, KM7W

-----  
=46ranklin, Tennessee <http://home.earthlink.net/~mwattcpa> =  
=20  
NorCal #2031 -- ARCI #7514 -- QRP-L #0953 -- AK/QRP #098 -- Grid EM65

-----  
Date: Fri, 27 Mar 1998 12:36:09 -0800  
From: Vic Rosenthal <rakefet@rakefet.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7010] Hey, Central CA QRP guys!  
Message-ID: <351C0DB9.422C896A@rakefet.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I'm getting real tired of reading about all the fun you guys in Northern CA, TX,  
etc.  
are having getting together, showing off equipment, etc. How about all of us in  
the  
Central Valley (say, Bakersfield to Modesto) get together? A picnic where we  
could  
set up antennas might be nice...

Send suggestions to me by email, and I'll try to coordinate.

Vic, K2VC0  
Fresno CA

-----  
Date: Fri, 27 Mar 1998 15:30:45 -0500  
From: Michael Maiorana <mikemo@ibm.net>  
To: qrp1 <qrp-1@Lehigh.EDU>  
Subject: [7011] Old transistors found  
Message-ID: <351C0C75.762F@ibm.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Going through my junk I found an old box of parts from when I was a kid (1970's). There were a bunch of old Toshiba and Hitachi can transistors in there. I remember that there were some folks who were looking for replacements or parts for an old design. If anyone is interested I'll look for the part you need and send it to you if I have it. They are not doing me any good.

Regards,

--

72 de kf4trd  
Mike Maiorana  
Palm Harbor, FL

"And if I have prophetic powers, and understand all mysteries and all knowledge, and if I have all faith, so as to remove mountains, but have not love, I am nothing"

-----  
Date: Fri, 27 Mar 1998 15:51:13 -0500  
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>  
To: QRP-L Discussion Group <QRP-L@Lehigh.EDU>  
Cc: "Doc W.D. Lindsey/K0EVZ" <70511.3041@compuserve.com>  
Subject: [7012] WTB: T-T Items  
Message-ID: <199803271553\_MC2-382B-8F0@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: 7bit  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

Gang:

1. External VFO for Corsair I transceiver. Will pay top dollar for one in like-new condition.

If you have either item for sale, please advise. Thanks in advance :-)

--Doc Lindsey/K0EVZ            Rochester, MN--Home of the Mayo Clinic.  
MWBC  
519-16th Street SE  
Rochester, MN 55904  
507/289-5108 (eves)

I like to Tune my antenna with out using my radio but it gets to be a hassle removing the coax from the rig each time.

Would it be possible to put a "T" adapter on the input of my tuner and have some coax hanging out just for tuning up?

I don't know if I'm describing this so I will attempt a picture.

RIG T RF-1 - what should I put  
here when the RF-1 isn't

|       |  |
|-------|--|
|       |  |
|       |  |
| Tuner |  |
| in    |  |

If so should I have anything on the end of this coax when I'm on the air like a 50 ohm dummy load? I know they do something like this for computer networks.

Thanks

de KB0ROL, Brad

-----  
Date: Fri, 27 Mar 1998 21:39:44 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: bhowell@mail.utexas.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7014] Re: goat clusters  
Message-ID: <351C1CA0.957@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

> HW?

Is it just me, or has there been a change to what was a simple query? It seems that all over the bands it has been changed to:

HW? Hi Hi Hi Hi Hi BK

-Ed

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----  
Date: Fri, 27 Mar 1998 16:41:24 -0500  
From: David Maliniak <dmaliniak@penton.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7015] Why not needle nose pliers?  
Message-ID: <351C1D02.3798@penton.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hey Chuck:



You say you never use needle-nose pliers for lead bending but you didn't say why not... so... why not? I say again, it's worked just fine for me over the course of a dozen or so kits and homebrew projects. Maybe my inexperience is showing, but I've yet to trash a part because of them. FYI, I'm using the smallest Craftsman pliers I could find. And hey, they're guaranteed forever.

Maybe there's something I should know about needle-nose pliers that I haven't yet learned the hard way?

72, David N2SMH  
Glen Rock, NJ

p.s. I'll be off-line for a week... your reply should probably be posted here for the edification and enlightenment of the faithful.

-----  
Date: Fri, 27 Mar 1998 21:44:41 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: ku7y@dri.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7016] Re: broken slugs  
Message-ID: <351C1DC9.680E@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Darn. Had to quote the whole thing! Great suggestions Ron!

Now where were you 1 year, 3 months, 6 days, 2 hrs, and 2 IF cores ago?

-Ed (Casually reclined with Hammarlund HQ145-X Ottoman under foot.)

Monte Stark wrote:

>  
> Hi Chuck and all,  
>  
> One trick I learned while working at a radio shop....  
>  
> If the slug is the least bit hard to turn, heat the coil  
> a little to soften the wax. This will save breaking many  
> of the little critters.  
>  
> When you replace one, if it's a bit too small, put a little  
> piece of dental floss in with it. That will take up some

> room but still let you turn it. And it doesn't change the  
> value of the coil.  
>  
> I have even been known to put a second slug in to get the  
> radio to tune. That doesn't always work, but will sometimes.

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----  
Date: Fri, 27 Mar 1998 14:50:44 +0000  
From: Roger Hightower <n7kt@earthlink.net>  
To: bmug@gwl.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7017] Re: T connector  
Message-ID: <351BBCC4.67C98948@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

If you're using an RF-1 or one of the MFJ analyzers, just put a coax  
switch where you show the T connector. Switch the RF-1 or analyzer in,  
tune up, and then switch the rig in to operate.

--

72/73, de Roger, N7KT - QRP-L #62 - Mesa, AZ

-----  
Date: Fri, 27 Mar 1998 21:54:33 GMT  
From: mwattcpa@earthlink.net (Marty Watt)  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [7018] Re: T connector  
Message-ID: <351c1f98.90276744@mail.earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

On Fri, 27 Mar 1998 14:01:54 -0700, Brad Mugleston <bmug@gwl.com> wrote:

>I like to Tune my antenna with out using my radio but it gets to be a=20  
>hassle removing the coax from the rig each time.  
>  
>Would it be possible to put a "T" adapter on the input of my tuner and =  
have=20

>some coax hanging out just for tuning up?

>

>I don't know if I'm describing this so I will attempt a picture.

Instead of a "T" connector, use a two-position antenna switch. I'm not familiar with the RF-1, so this may not work, but if you do not need the = rig

to set the tuner with the RF-1, a coaxial antenna switch would do the = trick.

Same set up as you drew out, just throw the switch to tune/operate.

--

72 es 73 de Marty, KM7W

-----  
=46ranklin, Tennessee <http://home.earthlink.net/~mwattcpa> =

=20

NorCal #2031 -- ARCI #7514 -- QRP-L #0953 -- AK/QRP #098 -- Grid EM65

-----

Date: Fri, 27 Mar 1998 16:57:31 EST

From: SNickrand <SNickrand@aol.com>

To: qrp-l@Lehigh.EDU

Subject: [7019] Epiphyte Confusion: (Answers...please)

Message-ID: <e6d7b427.351c20cd@aol.com>

Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7bit

I recently acquired an unbuilt, original Epiphyte QRP SSB kit (as seen in Sept '94 QRPP and one of ten originally kit-ed up by Doug Hendricks). Thinking of using the parts from this kit to build an Epiphyte II (as seen in QRPP Mar, '96, whose PCB was listed as EP 2A), I ordered the PCB from Far Circuits. The board that came was EP 2B, which had the ground plane mods shown in the June '96 QRPP. It also had some mods that weren't shown in that article or anywhere else, that I'm aware of. Although FAR circuits has been very helpful and will be sending me the EP 2A circuit board, I'm still wondering what the 2B board was designed for ( 10 watt mod, for instance.

Does anyone know what the 2B board is for? Also, is the epi 2 better than the

epi 1 with the vfo and 5 watt mod (it would be easier to find the parts for the epi 1 mods than it would be to find the parts to convert the epi 1 to the epi 2). Finally, if I decided to build it as an Epi 2, does where does one find TOKO inductors other than Digikey ( I looked in their catalog and couldn't find the one coil called for in the EPI 2 which didn't come with the

epi 1 kit. I hope someone can make sense out of this and possibly have an answer. If you got this far and don't have an answer, thanks anyway for trying. 73's to all. Bill Nickrand KB9KOL

-----  
Date: Fri, 27 Mar 1998 17:02:11 -0500  
From: "Ken Hanks" <kennfd@ibm.net>  
To: <bmug@gwl.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [7020] Re: T connector  
Message-ID: <01bd59cb\$fe7a4120\$9d676420@kh>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Brad:

The easiest way to solve your problem is to use a 2 position coax switch. Tuner goes to the center of the switch and you switch between your rig and the RF-1.

```

                        |----->RF-1 ( Switch Position 1)
TUNER----->      X
                        |----->RIG   (Switch Position 2)
```

Using just a "T" connector will toast the RF-1 if you key the rig and forget to take it out of line.

73, Ken Hanks K1XS@ibm.net

-----  
Date: Fri, 27 Mar 1998 18:09:06 -0500 (EST)  
From: Chris Cartwright <ccart@dns.vidtel.com>  
To: QRP Reflector <qrp-1@Lehigh.EDU>  
Subject: [7021] Capacitor Question  
Message-ID: <Pine.LNX.3.93.980327180039.928H-1000000@dns.vidtel.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

I just "happened" to pick up a 78000 uF 40V capacitor (that's 78mF or .078 Farads) and was wondering if anyone knew how long I could run a QRP rig off of it when it was "fully" charged. I had all the math back in high

school and college, but I thought it might make for some interesting discussion. Plus, I'm lazy...

This is not as nuts as it sounds, I hope :) There are a few cmos memory retention schemes that use a "big" capacitor for memory backup rather than a true battery. 'Course I'll have to charge this thing with my truck <grin> And if nothing else I've got a hell of a filter for the mobile rig!

For the curious, the capacitor is 3" diameter, 9" long :)

```
-- Chris Cartwright,   Technical Engineer   |       ccart@vidtel.com       --
-- N3XRV      ARRL-VE   QRP WAS 28/13(w/c)   | http://dns.vidtel.com/~ccart --
-- QRP-L #655 NORCAL #1891 QRP-ARCI #???? NJ-QRP #105 LIQRP #???? MDmW #5 --
```

-----

Date: Fri, 27 Mar 1998 16:24:58 -0600  
From: Mike - W0TMW <crucis@sky.net>  
To: ku7y@dri.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7022] Re: broken slugs  
Message-ID: <351C273A.16C791AA@sky.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Monte Stark wrote:

>  
> Hi Chuck and all,  
>  
> One trick I learned while working at a radio shop....  
>  
> If the slug is the least bit hard to turn, heat the coil  
> a little to soften the wax. This will save breaking many  
> of the little critters.  
>  
> When you replace one, if it's a bit too small, put a little  
> piece of dental floss in with it. That will take up some

Waxed dental floss! Unwaxed will just bind up. I found out the hard way! :-(

> room but still let you turn it. And it doesn't change the  
> value of the coil.  
>  
> I have even been known to put a second slug in to get the  
> radio to tune. That doesn't always work, but will sometimes.

>  
> cul,  
>  
> 73, Ron, SOWP 5545M,  
>  
> .....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
> ....ku7y@sage.dri.edu.....Washoe Lake, Nevada.....  
> ....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

--

```
=====
Mike Watson, W0TMW           QCWA Mbr# 28651, MidContinent Chapter #35
Raymore, Missouri, USA      Grid: EM28st, ARS# 352, QRP-L# 1849
http://www.sky.net/~crucis   E-mail: crucis@sky.net
=====
```

-----

Date: Fri, 27 Mar 1998 22:50:47 -0000  
From: "Steve Sorrell" <ap036@detroit.freenet.org>  
To: <PDouglas12@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [7023] Re: Lead benders and cores  
Message-ID: <000301bd59d2\$c9ccfa60\$b042b3c7@default>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Sorry, I NEED a lead bender and I REALLY NEED a CORVETTE, so speak for  
yourself! de Steve, W8SFF

-----

Date: Fri, 27 Mar 1998 17:56:39 -0500  
From: Rick McNelly <72507.235@compuserve.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7024] Another SLV Coil!  
Message-ID: <199803271758\_MC2-3830-F27E@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: 7bit  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

Hey Gang,

here is another coil to use with the St. Louis Vertical. I picked up an air-dux coil #3159166-1 at a hamfest for \$5, its about 7" long and 2" in diameter.

There is a piece of plexiglass that runs down the middle of the coil that initially prevented me from sliding the coil down the South Bend SD20 pole. So I pried and scraped on it with a screwdriver until one side of the plexiglass came away from its bead of glue(?). The coil would then slide down the pole to the top of the 3rd section from the bottom. This just about centers the coil on the pole. Drop the lowest sections of the pole to adjust the tap.

Using a borrowed SWR analyzer it seems to be very easy to adjust. Using three 33' radials made from 3 conductor rotator cable (w/ snips for 20 and 30M) and two of the original twinlead radials, I can find a tap that will load up anywhere 40m and up. It will almost do 80, using the whole coil brings a resonant point down to about 3.950. I experimented by clipping a short piece of wire to the top of the pole and was able to get a low swr on 80 (please no flames about efficiency here, its just an experiment :-).

This makes for a very simple and lightweight setup and the coil doesn't add much windload to the pole either. Cheap too!

So poke around in those boxes at hamfests, you might find a real treasure.

72/73's,

--Rick, KE4IZH

72507.235@compuserve.com  
Chesapeake, Va.  
MP2.1K

-----  
Date: Fri, 27 Mar 1998 16:59:13 -0600 (CST)  
From: mjsilva@ix.netcom.com (michael silva)  
To: ccart@dns.vidtel.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [7025] Re: Capacitor Question  
Message-ID: <199803272259.QAA17735@dfw-ix13.ix.netcom.com>

>  
>I just "happened" to pick up a 78000 uF 40V capacitor (that's 78mF or  
.078  
>Farads) and was wondering if anyone knew how long I could run a QRP  
rig  
>off of it when it was "fully" charged.

Assuming a constant current draw, the formula is  $i = C \, dv/dt$ , so pick a  $dv$  (say 3 volts, from 14 down to 11) and solve for  $dt$ .

$dt = C \, dv/i$

At 500 mA you'll get a whole 1/2 second... (assuming I can do algebra and arithmetic on the fly...)

Note that this is the same way to solve for a filter cap in a linear regulator. Here  $dt$  is 1/120 for full-wave 60 cycle,  $dv$  is determined from the peak voltage out of the rectifier and the regulator drop-out voltage, and you solve for  $C$ .

73,  
Mike, KK6GM

-----  
Date: Fri, 27 Mar 98 15:02:24 PST  
From: Paul Erickson <paul1@wizard.ucs.sfu.ca>  
To: qrp-l@Lehigh.EDU (qrp)  
Subject: [7026] Norcal Paddle mod question  
Message-ID: <9803272302.AA24449@wizard.ucs.sfu.ca>

I am in the process of putting my kit together (my crome base looks great, thanks Alan) and was wondering about replacing the contact screws, on the paddle arms with relay contacts. The only ones I have would need to be soldered in place. Would like to compare notes with anyone who might have already tried this.

cheers, Paul VE7CQK/email: paul1@wizard.ucs.sfu.ca

-----  
Date: Fri, 27 Mar 1998 15:02:33 -0800  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [7027] Capacitor question  
Message-ID: <01bd59d4\$6d677f00\$309f5ecf@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"



Content-Transfer-Encoding: 7bit

>-- Chris Cartwright asked  
>I just "happened" to pick up a 78000 uF 40V capacitor (that's 78mF or .078  
>Farads) and was wondering if anyone knew how long I could run a QRP rig  
>off of it when it was "fully" charged. I had all the math back in high  
>school and college, but I thought it might make for some interesting  
>discussion. Plus, I'm lazy...

The solution comes from solving that I and C integral, remember?

To cut to the chase (approximately):

time (seconds) = (change in voltage (volts)) X C (farads) / I (amps)

To make a quick estimate using your example:

Assuming:

1. We charge the cap to 14 volts and the rig can continue running until the voltage drops to 10 volts
2. The rig draws a constant 100 mA. (Let's think about just receiving for the moment)

Then:

Operating time = 4 volts X 0.078 farads / 0.1 amps = 3.1 seconds

Better get your code speed up!

Mike K1MG

-----  
Date: Fri, 27 Mar 1998 15:43:52 -0700  
From: Kent Torell <torell@sicom.com>  
To: ccart@dns.vidtel.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [7028] Re: Capacitor Question  
Message-ID: <v04003a02b141dae04213@[192.91.202.41]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>I just "happened" to pick up a 78000 uF 40V capacitor (that's 78mF or .078  
>Farads) and was wondering if anyone knew how long I could run a QRP rig  
>off of it when it was "fully" charged.

Well, lets see ....  $i = C \, dV/dt$ , or [roughly]  $dt = C \, dV / i$ , so a norcal

40a, pulling 20ma on receive would drop the supply voltage by 2 volts (13 to 11 volts) in  $0.078 \times 2 / .020 = 8$  seconds. On transmit, it would be less than 1 second.

This is why some radios keep playing after you turn the power off ...

Kent Torell      torell@sicom.com      602-607-4852  
SICOM      7585 E. Redfield, #202      Scottsdale, AZ      85260

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Date: Fri, 27 Mar 1998 16:35:38 +0000  
From: Roger Hightower <n7kt@earthlink.net>  
To: ccart@dns.vidtel.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7029] Re: Capacitor Question  
Message-ID: <351BD55A.8D61EEBD@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Be careful with those big capacitors. When I was a kid, my dad used to charge one up and toss it to me. Took only a few times before I learned not to catch \_anything\_ he threw my way. Screwed up my ballgame, too, for a while, :-)

--

72/73, de Roger, N7KT - QRP-L #62 - Mesa, AZ

-----  
Date: Fri, 27 Mar 1998 18:45:54 -0600  
From: Bob Liesenfeld <wb0poq@visi.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7030] Re: Capacitor Question  
Message-ID: <351C4842.3ABE007@visi.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Roger Hightower wrote:

>

> Be careful with those big capacitors. When I was a kid, my dad used to  
> charge one up and toss it to me.

We used to do this to new techs when they would walk in the door to start work on their first day. If they reached out to catch it we knew we had some work to do to bring them up to speed...but...if they stepped aside and let it fall, we gave them the keys to a service van and a bunch of service tickets to go fix.  
:-)

If I did this today I think I would soon hear the sound of a hundred lawyers RUNNING to be first in line :-)

72 Bob 'POQ

--

Genuine E-mail From the Land of the Everlasting Icicle...  
Bob Liesenfeld  
wb0poq@visi.com

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Date: Fri, 27 Mar 1998 18:52:26 -0500  
From: "Tim Cook" <timcook@erinet.com>  
To: "QRP" <qrp-1@Lehigh.EDU>  
Subject: [7031] QRP Books- lower Price  
Message-ID: <064101bd59db\$65c103a0\$14755acf@timcook.erinet.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

The books are available for sale once again, the previous deal didn't materialize...

The following books are offered as a package only

1. Low Profile Amateur Radio by Jim Kearman, KR1S
2. How to get started in QRP by Dave Ingram, K4TWJ
3. The Hotwater Handbook first edition 1985
4. The Hotwater Handbook first edition 1986
5. The HW-8 Handbook First edition 1991 (also includes HW-9 )
6. W1FB's Design Notebook 1990
7. QRP Notebook by Doug DeMaw W1FB 1986
8. ARRL electronics data book by Doug DeMaw 1976
9. Solid State Basics for the Radio Amateur by Doug DeMaw and Jay rusgrove 1978
10. QRP Classics by Bob Schetgen KU7G 1990
11. QRP Power by Zack Lau and Joel Kleinman 1996

All books are in exc to new condition. Will sell as a set only for 75 shipped book rate.

Please email direct if interested  
Thanks  
Tim  
NZ8J

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End of QRP-L Digest 1042  
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